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(Phonetics)



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A STUDY IN  
SERBOCROAT  
ACCENT AND INTONATION

by R.G.A. de Bray

ABSTRACT  
of Ph.D. thesis

"A study of Serbocroat accent and intonation"  
by R.G.A. de Bray

Serbocroat is a language the accent of which is a combination of expiratory stress, length and a rising or falling tone. There are certain differences of accent between the language of educated people in Belgrade and Zagreb; and this is a study of the Belgrade variety of the language.

Although the accents of individual words have been studied for a long time, no thorough study has yet been made of the sentence intonations of the language. The present work first sets out to define, by the broadest criteria, the main sentence intonations of the language, and then to find out whether the individual word tones are always realized in the same way under different circumstances in various kinds of statements and questions.

Certain words are selected as test words or 'inserenda', and these are then alternately placed in a selected set of statements and questions ('frames') initially, medially and finally, both prominent in pronunciation and unstressed.

These sentences were recorded from the reading of a representative speaker on a tape recorder, and later the oscillograms of these recordings and special new pitch



recordings ('tonograms') were made concurrently on the oscillograph and photographed with a high speed camera.

The full text of the frames and their translations is given and the frames are analysed in relation to the various possibilities of spoken Serbian. The photographs of the 'tono-oscillograms' are then given with the part marked which is of special significance to us. Below each is given the corresponding text in the (very accurate) Serbian orthography, the analysis of the example and a report of our observations. Graphic and comparative summaries of these observations follow.

The conclusions show that while the accents are often realized in a form agreeing with their traditional description, certain factors, viz. the superimposition of question intonation, final and initial position of the inserendum in the sentence, and its relative prominence cause different or contrary realizations for the four separate accents. These are differently affected by the above four factors, the two falling accents having a markedly different set of phonetic exponents from the two rising accents. But each member of these two pairs differs from the other, because of their inherent differences of length.

Thus for each accent one arrives at a different

scatter of results with a given set of frames and therefore it is true to say that though sometimes a certain pair of accents may be realized identically, they are nevertheless distinct because of the different scatter of the overall results.

The appendices consist of the tape-recordings, the photographs of the tono-oscillograms, translations of two important passages on the accents by Vuk Karadžić, and recordings of continuous passages by way of illustration, and translations of the quotations given from works in the Slavonic languages. A bibliography concludes the work.

Accentus est veluti anima vocis

Diomedes

"All speech is syllabic, is heard as a sequence of beats or pulses, and the distribution of length, pitch and stress over the phones and syllables of speech determines the rhythms we feel and hear."

J. R. Firth, 'Speech'.

# C O N T E N T S

Acknowledgements	1
Preface	4
Chapter I - Introduction	9
Chapter II - The nature of Serbian speech (with regard to tone)	13
A. Sentence intonations in Serbian	13
B. Word accents in Serbian - general remarks	26
I Pitch	29
II Length	36
III Stress	39
IV Enclitics	41
C. Restatement of the problem	43
Chapter III - General description of the method of solution here used	47
A. Test words (inserenda)	47
B. Test sentences (frames)	47
C. The informant	49
D. The apparatus used	50
E. Method	52
F. Text of the frames with their translations, commentary and analysis	53
Chapter IV - The results obtained	59
A. Record of observations	59
B. Graphic summaries	96
C. Comparative summaries	100
Chapter V - Conclusions	102
List of Appendices	112
(Appendix II) Photographic reproductions of the tono-oscillograms - review	113

(Appendix III)	Translations of two passages on accents from the works of Vuk Karadžić	117
	A. From his "Serbian Grammar" of 1814	117
	B. From his grammatical preface to his "Serbian Dictionary" of 1818	122
(Appendix IV)	Accented texts of continuous passages recorded, intended as illustrative material:	
	1. Act I, Scene IX from "Gospođa ministarka" by Branislav Nušić	126
	2. Abridged version of "Šetnja posle smrti" by Milovan Glišić	128
(Appendix V)	Translation of passages in Russian, Serbocroat and Czech	138
	Bibliography	145

A STUDY IN  
SERBOCROAT ACCENT AND INTONATION

A contribution to the study of the relation of word tone  
and sentence intonation.

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informant.

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NOTE

1. The numbers given to the works quoted refer to their numbers in the bibliography at the end of this work.
2. Despite the title of this work, I have mostly used the name "Serbian" advisedly, in preference to "Serbocroat", because this is a study of a particular form of the language which is spoken in Belgrade and, in a broader sense, in Serbia generally as well as in the Voivodina. This is the form of the language which is called by Yugoslavs ekavština, i.e. the e-variety of the što dialect.

Some of the differences of accent between the Belgrade and the Zagreb 'centres' of the language were clearly delineated by Professor A. Belić in his article "Из новије акцентуације " which appeared in "Наш језик", new series, књ. II, св. 7-10, pp. 233 et seq. Although the author unhesitatingly accepts the unity of the Serbocroat (or Serbocroatian) language, it would be both unrealistic and unpractical, in a study of such details, to include examples from different varieties or dialects of the language and claim that one's results hold good for them all.

## PREFACE

Serbian is a language in which the word accent is a combination of stress and, according to all authoritative grammars, a rising or falling intonation on the stressed syllable, which may have either a long or a short vowel. The accent is thus characterized by (1) force of expiration (stress), (2) a rise or fall in pitch, (3) varying length, and might therefore be called a tono-expiratory accent.

The present work represents an attempt to investigate how this word accent is realized within the framework of the sentence 'melody' or sentence intonations of ordinary conversational utterances, statements and questions, in a necessarily limited, but important, category of words combined with other words suitable in the context and limited in selection, as they are repeated in conjunction with the selected test words.

As a beginning, only one informant, but a very good and highly recommended one, was used: Dr. Milka Ivić, now of the Philosophical Faculty, Novi Sad, who was born in Belgrade in 1923 and brought up there and was working at the Serbian Academy of Sciences, Belgrade, when this material was composed by myself and recorded for me by her. It is believed that by this carefully selected and highly limited

and elaborated series of examples some guidance will be obtained as to the realization or 'exponents' of the word accents in other similar categories of words (i.e. verbs), as spoken by other representative speakers of the same dialect group. But the writer, by using the present material, makes no claim to have found the answer for other word categories or for the speech of speakers belonging to other dialect groups. Such material has in fact been recorded, and these recordings are in the possession of the writer. But owing to the exigences of cost and time and the experimental nature of this project, he was obliged severely to limit his collection of 'tono-oscillograms'. These were made from his recordings on an apparatus which was invented by Mr. H. J. Adam of the Department of Phonetics School of Oriental and African Studies, University of London, in about May 1955. (A technical description of this apparatus follows on p.50) These tono-oscillograms were produced between May and September, 1955, prior to the writer's departure for Australia in the latter month.

The writer was first led to suspect the existence of this problem during his studies of Serbian at the University of Belgrade in 1937-39 under Professor Aleksandar Belić. He was brought even more forcibly up against the problem when conducting intensive courses in Serbocroatian for members of the Forces at the University of London in

1942-45. At the beginning of this period Mr. P. A. D. MacCarthy, who was assisting on the phonetics side of the courses, challenged the assertion of the very existence of tonal accents in Serbian. But the writer, from his experience of the language, felt it was not a question of existence or non-existence of these tonal accents, but of the realization of tonal rises and falls in certain circumstances (and not necessarily always in all words in a sentence). And he was further encouraged by clear aural evidence of a distinct difference in the 'musical' or 'tonal' impression of Serbian, when contrasted with other Slavonic languages heard in quick succession, as at a Slavonic Congress in London during the war or at his previous work with the BBC European Service, or finally when he recorded Macedonian and Slovenian, as well as Serbian and Croatian, in Yugoslavia in 1951. Interesting evidence of another kind was given to the writer by another, rather unusual, experience. A certain bedridden friend of his was learning Serbocroatian and asked him for instructions on the pronunciation of the 'musical' accents. The writer confined himself, owing to lack of time, to reproducing in his own words the explanations given by Subotić and Forbes, Serbian Grammar, (No. 54), pp. 20-22, and D. Fry and D Kostić in their "Serbo-Croat Phonetic Reader", (No. 15), pp. 6-9, and then had to leave to catch the last bus home. After that he was unable

to visit his friend again for about three months. When he finally did so, he was astonished to find that his friend had succeeded in applying in his pronunciation the system of 'musical' accentuation described in the grammars without any modifications or adaptations. The resultant pronunciation was highly 'musical' and unusual to his ear but quite unlike that of any Yugoslav. This was a remarkable case, especially as this student did have some opportunity of hearing Serbocroatian spoken in the broadcasts of the BBC European Service, though not often.

Various recordings were made - of lists of single words, sentences and continuous texts. But it was not till November, 1953, that the writer decided to adopt the 'inserendum method', suggested to him by Professor J. R. Firth. By this technique a given word which is being studied, (the 'inserendum'), is used in combination with a selected number of test sentences or 'frames'. These 'frames' are so composed as to allow the possibility of thereafter substituting other selected inserenda in them without their becoming meaningless. It proved extremely difficult to compose a text containing representative, but comparable words, constantly repeated in different concatenations in statements and questions, which yet made sense and was at all readable by a native speaker of some considerable endurance. The



author was fortunate to obtain the help of Dr. M. Ivić, who acquitted herself of her task with great success and gave a very natural and unstrained reading in December, 1953. In April, 1954, some supplementary recordings of her readings were made.

It was only in May, 1955, that Mr. Adam's apparatus, which isolated pitch (frequency) from volume and general noise effect (mixed frequencies), was produced in a form that could be used for the author's experiments. It proved possible, by using a double-beam tube, to use two tracks, the second one producing an oscillogram parallel to the tonal (frequency) graph ('tonogram'). It was these 'tonograms', which thus had a double check - that of the oscillogram below and that of the aural impression from the recordings, which were selected and used for the investigation of our problem and for the conclusions the author has here made, tentatively and with all the necessary reservations and limitations referred to above.

## CHAPTER I - INTRODUCTION

Since the time of Vuk Karadžić, who made the first systematic and consistent phonetic analysis of Serbian word tones, publishing his Grammar in 1814 (v. Appendix III) Serbian is known as one of the few modern European languages still to preserve traces, often much transformed, of the original Indo-European word tones or intonations. On the other hand, Serbian is a living European language, which has undergone the influence of neighbouring languages, both Slavonic and non-Slavonic, and like these, possesses also an expiratory or stress accent, which in Serbian coincides with the word tone. Therefore Serbian should be regarded not as a solely tonal language, but as a stress-tonal language in which rising or falling tone is one of the prosodic features of words. The alternatives of tone possible in a given word depend in part on the position of the stress in a given word, for all accented syllables, which are not initial, according to the rules of Serbian accentuation can only have one of the two rising tones (either long or short).\*

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\* It is a remarkable parallel that in a closely related language, Russian, S. C. Boyanus observed that all stressed syllables non-final in a sentence generally have a "slightly

The question that this work attempts to answer is this: does the system of Serbian word tones as finally formulated by Vuk Karadžić have as its exponents at the phonetic level, pitches that regularly correspond to the four accents used or do they vary according to the sentence intonation? Are the phonetic exponents really constant and independent of sentence intonation, as would seem to be indicated in the numerous accented texts published in Yugoslavia and elsewhere?

This question has never been thoroughly investigated with the aid of modern apparatus up till now. Belić in his "L'accent de la phrase..." (No. 36), and Miletić, particularly in his "Uticaaj rečeničke melodije..." (No. 39), have given conflicting answers to it. The former maintained

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rising" stress accent, which he contrasts with the "level" tone of stressed syllables in English. Final syllables in Russian, except in 'yes or no questions' and 'doubtful questions', are pronounced with a falling intonation according to Boyanus, thus acting as a signal of conclusion or finality in a normal statement intonation, as in English. See No. 70, pp. 87-88, and No. 67, pp. 49-50 et seq. Cf. also Serge Karcevskij, "Sur la phonologie de la phrase", Travaux du cercle linguistique de Prague, 4 (1931), p. 201.

that the word tones remained largely uninfluenced (p. 2 (184)),\* while the latter (p. 222) clearly asserts: (my translation) "Therefore it is more correct to talk about the relation of word intonation and sentence melody than to consider only the movement of the melody in (the accented vowel of) a word." He subsequently, in Section III, goes on to show that the prominence of a word in a sentence (i.e. sentence stress) also influences the manner of realization of word tones. In his earlier work in Czech, (No. 12) "O srbo-chrvatských intonacích...", his examples of complete sentences are limited mainly to the type: To je voda. To je sada. (= This is water. This is now.), where the words "To je" merely serve to introduce a word which is therefore inevitably prominent, and to brief questions, sometimes with an un-Serbian rising intonation (v. inf. p.44). Furthermore throughout this work he compares words which are different parts of speech and are therefore not strictly

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\* "Le mot garde son accent dans la phrase."

"Il est bien connu que les dialectes néoštokaviens ayant la nouvelle accentuation (de quatre accents) sont nombreux. Or dans tous ces dialectes l'accent du mot est conservé dans la phrase."

comparable. For these reasons, even if we accept his kymographic recording technique and the subsequent measurements and calculations as reasonably correct, we cannot accept his examples as the basis of a sufficiently exhaustive analysis of any one word category, more especially as he did not attempt to define the main sentence intonation patterns of Serbian speech.

Earlier writers were mainly concerned with word tone only, to the exclusion of sentence intonation, or at the most have studied it in words in final position in statements. (See R. Ekblom, "Beitrage zur Phonetik der serbischen Sprache", No. 31, J. Chlumský, "La mélodie des voyelles accentuées...", No. 35, B. Miletić, "O srbo-chrvatských intonacích...", No. 12)

CHAPTER II - THE NATURE OF SERBIAN SPEECH  
(with regard to tone)

A. Sentence intonations in Serbian.

It is necessary, therefore, to go over immediately to an analysis of Serbian sentence intonations and to try to analyse first of all the main intonation patterns, constantly repeated with variations, of which individual Serbian words usually form only a part in normal conversation or reading. As examples of these we refer to our Appendix IV in which on pp. ~~126-137~~ we give the accented texts of the recordings we have made of continuous passages, to which we shall refer again later (see pp. ~~18-25~~).

Whereas the different tonal patterns of individual Serbian words were studied in great detail nearly 80 years ago by Đuro Daničić (No. 1 ), work on the analysis of the sentence intonations of Serbian is of a far more recent date and has been far less thorough and complete, mainly because such workers as Gauthiot (No. 23), Broch (Nos. 4,5), Ekblom (No. 31) and Miletić (No. 12) were mainly concerned to give illustrations of word tone and were less interested in analysing the general overall intonations of statements and questions.

We must therefore find a criterion by which to classify Serbian sentences, which will provide a clear and



simple guide among the almost limitless variations possible by means of combinations of the various word tone patterns, studied and enumerated at length by Daničić.

On the basis of the grammatical and syntactical structure of Serbian, so closely akin to that of other Slavonic and also, to a less extent, of the classical languages and those developed from them, we have found that for the analysis of sentence intonations we cannot do better than be guided by two main criteria: (1) the syntactical analysis of the sentence, i.e. whether it is a statement, question, command, request, etc.; (2) by the relation in pitch of the stressed syllables of the sentence, that means not necessarily by the final syllables, though this can often be, e.g. in statements, a guide to classification in itself.

After a lengthy period of analysing aurally both 'live' and recorded speech, mainly in Belgrade and the vicinity, the author was able to confirm that owing to the phonetic structure of Serbian words themselves only one kind of intonation ending was possible in the language - a falling one. This is due to the fact that Serbian words are never accented on the final syllable and that post-tonic syllables are regularly lower in pitch than the accented syllable in a word; and furthermore all monosyllables can only bear one of the falling tones (short or long).

The following descriptions have been given by various authorities on Serbian intonations.

L. Kovačević, in his review of L. Masing's monograph entitled "Die Hauptformen des serbisch-chorwatischen Accents", No. 19, makes the following statements:

p. 693 (Ich würde aus allem dem folgern, das) in der serbischen Sprache diejenige Silbe als accentuirt anzusehen ist, welche den höchsten und stärksten Ton im ganzen Wort hat, und nur eine Silbe kann so beschaffen sein.

p. 691 Alle übrigen Silben eines Wortes werden im serbischen schwächer und tiefer ausgesprochen als diejenige, auf welcher einer von den vier bekannten Accenten steht, mögen sie der betonten Silbe vorangehen oder nachfolgen. Die der betonten vorangehenden Silben (das können nur Silben vor dem Accent ` oder ^ sein) unterscheiden sich weder in der Tonstärke noch in der Tonhöhe von einander; dagegen herrscht unter den der betonten nachfolgenden Silben ein bestimmtes Gesetz: es ist das Gesetz des progressiven Tonfalles sowohl was die Höhe als was die Stärke desselben anbelangt.

p. 692 Es versteht sich von selbst, dass nach den fallenden Accenten (¨, ^) nur tieftönige Silben folgen, die Höhe und Stärke des Tones je weiter gegen das Ende des Wortes, desto mehr abnimmt. Dagegen wäre es unnatürlich, wenn nach den

steigenden Accenten ( ` und ´ ), bei welchen der Ton gerade am Ende der Silbe culminirt, in der nächstfolgenden Silbe gleich volle Tieftonigkeit eintreten sollte. Wenn schon die serbische Sprache bei den tieftonigen Silben ein progressives Tongefälle liebt, so wird sie um so eher zwischen dem aufsteigenden Hochtone und der Tieftonigkeit eine Vermittelung erfordern. Die Vermittelung, d.h. der Mittelton zwischen den Accenten ` oder ´ und den nicht-accentuirten, tieftonigen Silben bildet eben jenen zweiten Bestandteil des von Masing angenommenen Zweisilbenaccentes.

A. Belić, in his article "L'accent de la phrase et l'accent du mot", No. 36, states: De même la phrase ainsi que les mots polysyllabiques prennent un accent descendant... (p. 2 (184))

In his article "Zur phonologische Deutung der Akzentverschiebungen in den slavischen Sprachen", No. 41, A. Isačenko says: p. 176 Besitzt ein Wort im Serbokroatischen keine steigtonige Silbe, dann ist das Tonprofil des ganzen Wortes ausschliesslich fallend. Der Intensitäts- so wie der Melodiegipfel liegen dann auf der ersten More des Wortes, d.h. alle solchen Wörter haben auch in der ersten Silbe eine fallende (kurze oder lange) Intonation. Alle übrigen Silben sind dann ebenfalls fallend, vgl. Schreibungen wie *ôbujem*, *jêzikâ*, *dûgim*, *hvâlîš*, etc.

In his article "Serbo-Croatian accents and quantities", No. 42, G. I. Trager wrote the following: Accompanying the stresses just described are automatic pitch differences. With the falling stress the pitch falls, and weak syllables are lower in pitch than loud syllables; .... With rising stress, the pitch rises even when the stress does not actually rise but remains level; the following syllable begins at the same level of pitch as the end of the loud-stressed syllable, and the pitch then falls to the pitch level of weak syllables. (p. 30)

The lower pitch of the unaccented syllables of words in a sentence is also implied in Carleton T. Hodge's little example, in his article "Serbo-Croatian Phonemes", No. 43, which he notates thus, with 6 indicating the highest, and 1 the lowest, pitch: The precise phonetic values of ' (= fall)\* and ' (= rise)\* are further conditioned by the sentence contour. The pitch varies greatly, as may be seen from the following example from a story: Svè<sup>6</sup>šte<sup>6</sup>ni<sup>4</sup>ik i<sup>4</sup> nè<sup>6</sup>ko<sup>4</sup>li<sup>4</sup>ko<sup>4</sup> se<sup>4</sup>l'aa<sup>5</sup>ka<sup>5</sup>a su<sup>2</sup> se<sup>2</sup> vò<sup>3</sup>zi<sup>2</sup>li<sup>2</sup> u<sup>2</sup> čaa<sup>5</sup>mcu<sup>5</sup> prè<sup>1</sup>ko<sup>1</sup> ri<sup>1</sup>jé<sup>2</sup>ke<sup>1</sup>e. "A priest and several peasants were crossing a river in a small boat." Vowel length also varies according to the sentence contour. (p. 113)

P. S. Kuznetsov in his article entitled . . .

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\* My brackets.

О фонологической системе сербо-хорватского языка,  
No. 46, on pp. 126-7, writes as follows:  
Все безударные слоги в сербском языке характеризуются, как  
известно, нисходящим тоном и различий, не зависящих от фразовой  
интонации, в них не наблюдается.

It can be inferred from all these quotations from authoritative observers that even in a question, where in many other European, including other Slavonic languages, under certain circumstances a final rising tone is used, in Serbian even if the question is indicated by a rise or a sudden jump in pitch on the emphasized word and that word stands last, a fall always follows - in the subsequent syllables of polysyllables or in the second half of the fall obligatory in monosyllables.\* Thus, in Appendix IV, pp. 126-7 we have:

1.      Госпòдин нѐје кòд куће?  
Gospòdin nĭje kòd kuće?
- = The master is not at home? . = short stressed syllable
- . or ✓ = short stressed syllable with rise or fall  
✓ or ↘ = long rising syllable  
↗ or ↙ = long falling syllable
2.      Вѝ сте чїновнїк̃?  
Vĩ ste činovnīk̃?
- = You are an official?

\* See p. 28

3. Је ли то́ извесно?

Je li tó izvesno?

= Is that certain?

---

• • • • •

---

4. Ама зар нѣ́како нѣ́је до́лазио?

Ama zar nĭkako nĭje dólazio?

= Didn't he really come at all?

---

• • • • •

---

5. На́ми?

Náši?

= Our (people)?

---

•

---

6. Стева́новић?

Stevánović? (a name)

---

• • •

---



7.      Òтишао је баш у двѳр?  
         Òtišao je baš u dvôr?

= He went off actually to the court?

• • • • • )

etc.

It was found that, ~~in contrast to Russian~~, even in questions expressing doubt, incredulity, etc., Serbian had a falling intonation in contrast to the rising intonation of both Russian and also English in certain instances, e.g. cf. Nos. 4, 6, 7 above with:

1.      Он пошел именно во дворец?

• • • • • )

2.      Он был в Москве?

• • • )

- 1a.     He went off actually to the Palace?

• • • • • •

2a. He has been to Moscow??

In Serbian only the interval of the rise was increased, followed, of course, by a fall. Broch in his Очеркъ физиологiи славянской рѣчи writes as follows: -

Оставаясь на почвѣ сербскаго языка (Мостаръ) прибавимъ еще пару примѣровъ для освѣщенiя элементарныхъ линiй въ его интонацiяхъ предложенiй. Сравненiе "došao je" (обыкновенно "došo je") въ рассказывающемъ и въ вопросительномъ видахъ:

..... — или ..... 1)      ..... 2)  
do-šo je do-šo je do-šo je?

показываетъ, что не нужно, чтобы вопросительная, восходящая, интонацiя продолжалась до самаго конца предложенiя; послѣдняя часть напротивъ идетъ опять внизъ. Ср. въ выраженiи какъ (напр., у сапожника) "je li gotovo?" (уд. gð-): въ спокойномъ вопросѣ отмѣчено

..... 3),  
je li go-to-vo?

въ досадномъ, грозящемъ вопросѣ ..... 4); линiя направленiя, какъ мы видимъ, вообще тождественна, въ томъ какъ и въ другомъ случаѣ она склоняется въ послѣднихъ, неударяемыхъ слогахъ внизъ; грозящiй смыслъ сказывается въ бо́льшихъ интервалахъ и свойственной всему выраженiю этого рода сильнѣйшей экспирации ("большей силы").

- 1) Обыкновенно маленькій интервалъ, отъ полутона до секунды.
- 2) Отмѣчена отъ do- до -<sup>v</sup>šo квинта, отъ -<sup>v</sup>šo до je обыкн. малая терція; въ изумленномъ вопросѣ интервалъ отъ do- до -<sup>v</sup>šo увеличивается.
- 3) Отъ je li до go- секунда или малая терція; въ go- слабое повышение; -tovo на полутонѣ до секунды ниже чѣмъ je li; но эти величины не абсолютныя!
- 4) Отъ li до go- обыкновенно кварта; повышение внутри go- выступаетъ ясно, на полутонѣ или секунду.

A rising or level intonation finally (i.e. on the accented syllable of the last word) in Serbian occurs only in non-final subordinate clauses or in uncompleted sentences.

In Appendix IV, p. 126, we have in the passage from "Gospođa Ministarka":

I. A vî u naše račúnáte...?

A vî u naše račúnáte...?

= And you consider as our people...?

---

and on p. 127

II. Ako bi bilo što vrlo interesàntno, vî ĩete dopùstiti?...?

Ako bi bilo što vrlo interesàntno, vî ĩete dopùstiti?...?

= If there should be anything very interesting, you will allow me...?

---

and in the passage from "Šetnja posle smrti", p. 132,

III. На?

Па?

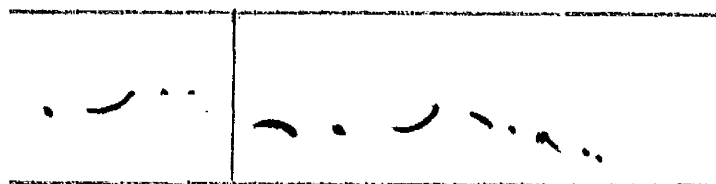
= Well?...



We are thus left with only two main sentence intonation types:

(I) The falling intonation used in statements, commands and questions beginning with an interrogative pronoun or adverb, as in English and Russian. This is characterized always by a final falling ending and generally also by a gradual fall in pitch of successive words, unless one of them is made prominent (by emphasis). For example in Appendix IV, p. 126, we have:

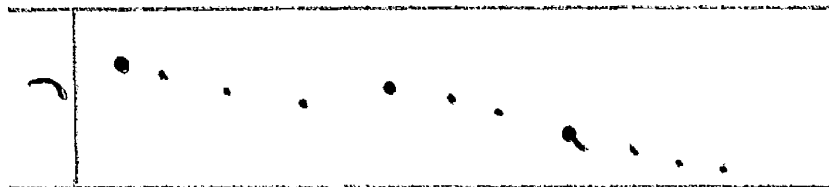
- (a) Извините, ја сам два пута куцао.  
Izvinite, ja sam dva puta kũcao.  
= Excuse me, I knocked twice.



(b) Да̂, пи̂сар код госпòдина Пòповића.

Dâ, pîsar kod gospòdina Pòpovića.

= Yes, a clerk in Mr. Popović's office.

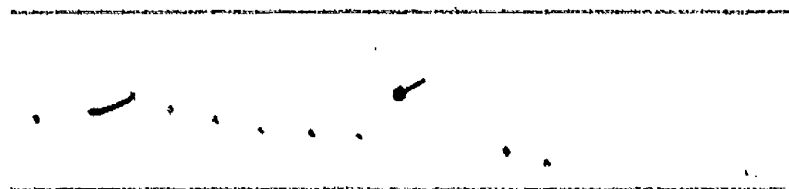


And, with emphasis on the last word, but with still a fall after the stressed syllable:

(c) А ни̂је ни у канцелàрији.

A nîje ni u kancelàriji.

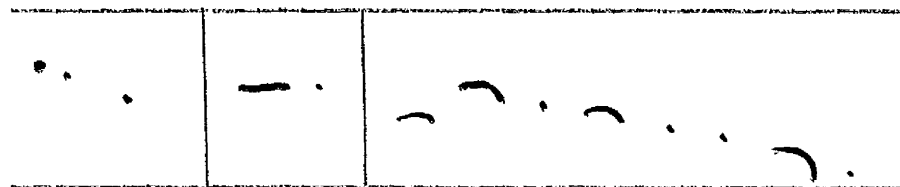
= And he is not in his office either.



(d) Хтèò сам, знáте, јá први тò да му јáвим.

Htèò sam, znáte, já p̂rvi tó da mu jávim.

= I wanted, you know, to be the first to let him know this.



It will be observed that in non-final clauses the voice pitch is kept high, as stated on p. 22, while in the final clause the voice pitch has the final falling

ending. This ending can be observed in every normal statement throughout these recorded texts. So in Text No. 2, p.128 recorded by another speaker, Dr. D. Milanković, we have:

(e) Сирòмах Тâле!	Бòг да га прòсти!	Кò би се нâдао?
Siròmah Tâle!	Bòg da ga pròsti!	Kò bi se nâdao?
= Poor Tale!	May God forgive him!	Who would have thought it?

.....

.....

.....

• • • • •  
• • • • •

• • • • •  
• • • • •

• • • • •  
• • • • •

Бòжja вòлja!

Ето штò ти је чòвек!

Bòžje vòlja!

Èto štò ti je čòvek!

= It's God's will!

That (shows you) what man is!

.....

.....

• • • • •  
• • • • •

• • • • •  
• • • • •

(II) The 'high pitch interrogative intonation' which is the normal intonation of questions with the answer 'yes' or 'no' in Serbian, as in Russian (see Boyanus, "Russian Pronunciation", (No. 70), pp. 99-103), and which in English is restricted to questions spoken with impatience, great anxiety, etc. We have already given examples of this type of question intonation on pp. 18-20, Nos. 1-7.

This question intonation, used when there is no interrogative pronoun or adverb in the question, is thus a

'relative' one, i.e. it is expressed by the relation in pitch of one word, which is made prominent by stress and higher pitch ('the psychological predicate'), to the preceding and/or following words.

As in Russian, a special rise-fall intonation is used in requests; but it does not otherwise occur normally. A fall-rise intonation does not seem to be used in Serbian.

B. Word accents in Serbian. General remarks.

Since the appearance in 1851 of Đ. Daničić's article, "Нешто о српскијем акцентима" (Slavische Bibliothek, B.I, p. 97) and of the second edition in 1852 of Vuk Karadžić's Serbian dictionary (No. 57)\*, the 'musical accents' (or tones) of Serbocroatian words have been marked according to a complete and consistent system in all authoritative grammars and dictionaries of the language.

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\* See Р.Брандтъ, Начертание славянской акцентологии, p. 79, and Footnote 3, which reads:

Собственно, Вукова акцентуація, въ окончательномъ видѣ, впервые является у Даничића: статья Нешто о српскијем акцентима вышла въ 1851 году, т.е. годомъ раньше второго изданія Вукова словаря.

Four accents or word tones are distinguished:

Long rising, marked	´	Short rising, marked	`
Long falling,     "	^	Short falling,     "	˘

Unstressed long syllables, which in the Što dialect here treated occur only after the accented syllable, are also marked: - or ^ thus occurring in print as a second written accent in a word. Vuk Karadžić heard a fall in these syllables also; hence his use of ^. (See Appendix III)

These accents have been considered to be an essential feature of the pronunciation of each word, sometimes having lexical significance and differentiating its meaning from that of another word composed of the same vowels and consonants and having the same spelling,\* e.g.:

grād = city, grād = hail;  
duga = rainbow, duga = long (f.);  
mlāda = young, (f.), mlāda = bride;  
gōra = wooded hill, gōra = worse;  
vrāta = door, vrāta = neck (gen.sing.);  
sédim = I grow gray, sèdim = I sit;  
kúpiti = to buy, kùpiti = to collect.

---

\* See Belić, (No. 45 ), p. 227, Из новије акцентуације:

Први и основни принцип наше је акцентуације, ја говорим овде о оним штокавским говорима који су у основици нашег књижевног језика, да су акценти саставни делови речи, тако да они заједно са гласовима чине оне знаке којима се обележава значење. То је важно стално истицати, јер то значи да се, кад је све друго у речи једнако, оне могу разликовати и само



According to the grammars, the accented syllable of a word in Serbian may bear one of the four accents, provided that the word is (a) accented on its first syllable, and (b) is not a monosyllable. As mentioned already on p. 18, monosyllables can have only one of the falling accents. No word in Serbian ever bears the accent on the last syllable. But words accented on any syllable but the first can have only one of the two rising accents. Hence it is true to say that the intonation of the accented syllable is connected with its position in the word.

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по акценту, тако да је акценат каткада главни фонолошки елемент карактеристичних гласовних јединица.

Kuznetsov in his article "О фонологической системе сербо-хорватского языка", p. 127, says the following, giving examples to support this statement: Это различие в направлении движения голосового тона в начальном слове слова играет определенную смысловозначительную роль ... напр. сѣјати 'сеять' - сѣјати 'снять'; рѣзор 'борозда' - рѣзор 'разорение'; ствѣри род., дат. ед. ч., - ствѣри местн. ед. ч.; пјевачица 'кукушка' - пјевачица 'певица'; малина 'малина' - малина 'малая величина'; имање 'имение' - имање 'свойство'.

E.g. rúka = hand (Nom.sing.), but rûku (Acc.sing.)  
rûke (Nom.pl.), rúkâ or rûkû (Gen.pl. - the second form  
being an old dual form), rûkama (Dat., Instr., Loc.pl.).

It will be seen that in the course of declension  
the accent varies in tone, but not in its position for  
this word - the final syllable never being accented. It  
also varies in length as ` (short rising) alternates with ^  
(long rising) and ^ (long falling).

Similarly in: sîn = son, c.f. Nom.pl. sînovi,  
Gen.pl. sinóvâ, Dat., Instr., Loc.pl. sînovima; stâr = old  
(Nom.sing.masc. indefinite form), fem. stâra, but stârî,  
stârâ (Nom.sing.masc. and fem. definite form) and stârijî,  
stârijâ (Nom. sing.masc. and fem. comparative degree);  
grâd = town, Loc.sing. grâdu, Nom.pl. grâdovi, Gen.pl.  
gradóvâ, Dat., Instr., Loc.pl. gradòvima or grâdovima.

# (I) Pitch.

The descriptions of Serbian word accents by  
various authorities in the main agree on the chief  
characteristics of each as regards pitch. Both Jagić  
and Isačenko talk about the long vowels as consisting of  
two moras in contrast to the short vowels which consist  
of one mora.

On p. 3 of his article "Paralele..."(No.17) Jagić

says: Mi razlikujemo u današnjem književnom jeziku hrvatsko-srbskom, u narečju štokavskom, četiri razna izgovora kratkih i dugih vokala ukupno; a prema tomu imamo i četiri različita znaka, na ime `` i ` za kratke, a ^ i ' za duge vokale.... And on p. 5, Jagić, talking about long vowels being of two 'moras' or halves, compares the ekavština form vréme with jekavština form vrijème, déte with dijète, sêno with sijeno, têsto with tijesto; also sâhat with sât, vol with vòo and vô, etc. He also says on the same page: Dakle dug vokal s naglasom ^ znači od prilike koliko dva kratka s jakim uzvisom glasa (``) na prvoj polovici (na prvoj mori) onoga dugoga vokala, a s opadanjem glasa u drugoj polovici (dru<sup>g</sup>oj mori); opeta dug vokal s naglasom ' znači od prilike koliko dva kratka vokala s oduljeniem uzvisom (^) u drugoj polovici (dru<sup>g</sup>oj mori).

On the phonetic level the experiments and illustrations of Ekblom and Chlumský, as well as the author's own illustrations to follow, show clearly that the long accented vowels are usually approximately double the length of the short accented vowels. Ekblom gives the following average measurements for the duration of the accented syllable of disyllables, in his article "Beitrage ...", p.19, (No. 31):

	Before voiceless stops	Before voiced stops
˘	10. cs.	13.5 cs.
˙	-	11.8 "
ˆ	20.3 "	23.0 "
˙	19.8 "	23.2 "

The system of rising and falling pitches is built on this basic distinction of long as opposed to short vowels in Serbian speech.

Nearly all scholars so far have studied the accents of Serbian words only in isolates, and the descriptions of the separate accents by such authorities as Vondrák and Fry and Kostić and others are made on this basis. Others, such as Ekblom, Chlumský and Miletić have described the accents of words pronounced as in final position in a sentence before a full stop, i.e. with the falling intonation characteristic of the end of a statement. The long rising accent ˘ is described by Gauthiot and Belić as starting low in pitch and strong in stress and ending high in pitch and weak in stress. According to Fry and Kostić the rise in pitch within the vowel so accented is "of about a semitone or tone". The long falling accent ˙ is described as starting at a high pitch, sometimes even with a slight rise, and then falling in pitch. According to Fry and Kostić, who agree with this description, the

initial rise may be "of about a semitone or tone followed by a fall of approximately two and a half to three tones". The short rising accent is similar to the long rising accent but shorter, while the short falling accent is a brief and forceful fall in pitch often amounting to a stress accent only. In fact the predominance of the stress element has led both Fry and Kostić, and G. L. Trager to regard stress and not pitch as the dominant element in the short accents, and Fry and Kostić talk about them as weak and strong stress respectively. Daniel Jones, on the other hand, is inclined to the view that nevertheless pitch is the dominant and stress and length are the subsidiary elements in Serbian accents. (See his book, "The Phoneme", § 556)

It must be admitted that the difference between ' and '' is much less clearly distinguishable by ear than the difference between ^ and ^'. In fact Subotić and Forbes (No.54 ) call it very slight. Vondrák states that '' sounds more abrupt and forceful than ' in his "Vergleichende Grammatik der slavischen Sprachen", (No. 9 ), pp. 281-292, sections 204-211. He further points out, on the authority of L. Kovačević, that the pitch of the syllables immediately after the accented one are affected by its intonation and that after the rising accents the subsequent

syllables have a tendency to remain higher in pitch and seem more closely connected to the preceding accented syllable. (No. 6, p.130) J. J. Mikkola also states/: Die sekundären steigenden Intonationen ( ~ ` ) bewegen sich in höherer Tonlage als die alten, fallenden ( `` ^ ) und auch die nachfolgende unbetonte Silbe ist in musikalischen Hinsicht bedeutend höher als die unbetonte nach `` und ^. (See also Miletić, (No. 12 ), p. 38, et. seq.)\* Both Jagić and Belić also describe ` as more "gentle" than `` (blaže, No. 49, Gramatika, Vol. 1, p. 14). Jagić in his article "Paralele ..." (No.17) wrote: (Rad Jug. Ak. z. i u. Vol. XIII, p. 4): "Jer je prvo ciela istina, da se slovka (vokal), naglašena akcentom `, puno blaže izgovara, nego li da je akcenat ``."

For the foreign student learning Serbian, the slight initial rise of the long falling accent makes him easily mistake it, when he hears single words or short sentences spoken, for the long rising accent. The short rising accent, on the other hand, owing to the fact that it often strongly affects the pitch of the subsequent syllable, is also difficult for beginners to hear, leaving them in doubt on which syllable the accent actually falls. The long rising accent is the most unusual and, therefore,

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\* Note especially on p. 39: U akcentu sekundárních ( ` a ^ ) interval mezi slabikou přízvučnou a následující bývá menší než u akcentu primárních. (Miletić's italics)

also the most prominent for the foreign listener, when he hears a good speaker of Serbian. The short falling accent is the most "ordinary"-sounding to the foreign ear, sounding like a strong and brief stress, starting fairly high in pitch and falling abruptly.

The above remarks apply also to (vocalic) *r* when it is syllabic and has the role of a vowel, as in *cĕrkva* (church), *bĕrdo* (hill), *zĕrno* (seed), *vĕrnuti* (to return), *pĕrav* (bad), *ĕt* (cape), *gĕroce* (little throat).

We should also like to quote the opinion of two eminent French authorities, Meillet and Vaillant, in their "Grammaire de la langue serbocroate", (No. 53), p. 38, wrote on the subject of the *`* and *˘* accents the following: A Belgrade, où le système štokavien avec ses quatre types d'accents est encore bien senti et reste comme modèle de bonne prononciation (langue du théâtre), une transformation est en train de se produire dans la langue parlée. L'accent a pris une intensité plus grande, ce qui, du moins dans les syllabes brèves, tend à faire disparaître les nuances musicales: les deux accents brefs *`* et *˘* sont souvent mal distingués.

It will be seen from the above how inextricably the features of length and rising or falling pitch are combined in the Serbian accents. It is interesting to see

how P. S. Kuznetsov summarises the position from the phonological point of view. In his article "О фонологической системе сербо-хорватского языка", No. 46, he writes as follows: С фонологической точки зрения сербское ударение должно быть интерпретировано так. Оно относится к фонологическим средствам, характеризующим целое слово, реализующимся на основе противопоставления целых слов. Но, в отличие от монотонического ударения, характерного для русского и большинства славянских, а также западно-европейских языков, сербское ударение характеризуется двумя смыслоразличительными признаками - местом в слове и качеством (направлением движения голосового тона). Но каждый из этих признаков проявляется лишь в определенных условиях (так же, как и фонемы различных классов очень часто могут противостоять друг другу лишь в определенных условиях): только местом ударения могут отличаться друг от друга лишь слова и формы, характеризующиеся восходящим ударением; только качеством ударения могут различаться лишь слова и формы, имеющие ударение на начальном слоге, при чем в слове более чем один слог.

The above is a clear and concise statement of the basic system of accents which in connected speech have different exponents, as will be shown in the following chapters.



(II) Length.

As mentioned already (p.27 ), long syllables can occur after the accent only. These 'subsequent longs' occur in declension and conjugation as well as in the roots of words, sometimes having a phonological importance greater than the pitch accent in certain instances, e.g. *Žèna* = woman, *Žénā* = of women, Gen. pl. In this example both e's have a rising accent but the vowels are contrasted in length, the long *é* occurring exclusively in the Gen. pl. in the declension of this word. The a's of the second syllables of the two words are also contrasted, the Nom. sing. having a short *ǎ*, while the Gen. sing. has the long *ā* characteristic of the Gen. pl. form of the vast majority of Serbocroat nouns. It is true that in the Belgrade pronunciation these final long *ā*'s are not always clearly heard. In the pronunciation of some there is also a slight closing of the long *é*, but we consider this difference of quality a subsidiary feature. Differences of vowel quality in Serbocroat as between long and short vowels or between stressed and unstressed vowels are incidental and characteristic only of individual speakers. They are not part of the phonological system of the language, as they are for instance in Slovene. Vowel lengths also occur in

other noun, adjective and verbal forms such as:

žēnē = woman, Gen.sing. of žēna, ženōm Instr.sing.

but žēne Nom. Acc. pl.

mlâdī, mlâdā, mlâdō = young, Nom.sing.masc.fem.neut. def. form

mlâdi

Nom.pl.masc.indef.form

mlâda, mlâdo

Nom.sing.fem.neut.indef.form

glèdajū = they look, glèdāj = look! (Imperative)

glèdāh (1st pers.sing. Imperfect), glèdah (1st pers.sing.Aorist)

In modern grammars they are usually indicated by a  $\bar{}$  over the vowel, but Vuk Karadžić, No. 57, and Ristić No. 60, and Kangrga/in their still authoritative dictionaries use the round circumflex accent both for  $\wedge$  and  $\bar{}$ , the first one in a word being understood by convention to bear the main falling pitch.

Lengths of vowels in Serbian are one of the inherent distinguishing features of words, and are not connected with stress. Their occurrence is largely independent of word tone and sentence intonation. It should be noted, however, that in normal Belgrade pronunciation unaccented long vowels in noun and verb endings are often shortened.

It was not till Miletić published in 1935 his "O fiziološkom kvantitetu u srpskohrvatskom" (Belgrade) that attention was turned to the measurement of the relative quantities of Serbian vowels. Later, after the establishment of the Department for Experimental Phonetics at the Academy of Sciences in Belgrade in 1948, actual time measurements were made of the duration of the various accented and unaccented vowels. It was then shown, as revealed in the

reports of Đ. Kostić in the Glasnik Srpske Akademije nauka II, 2, Nos. 1,3; III, 2, No. 1; IV, 1, No. 2; IV, 2, No. 6, that the short accented vowels had a duration of 6 to 10 centiseconds and that the long accented vowels had a duration of 46 to 72 cs for the ^ accent and 39 to 75 cs for the ' accent. The unaccented second syllable of disyllables had a duration of 16 to 42 cs (usually 25-34 cs) after ^ and up to 48 cs after ' (Glasnik SAN III, 2, No. 1, p. 278, et seq.). After ' the energy (volume) of the subsequent syllable was shown to be more constant.

Miletić in his Основи фонетике српског језика, No. 14, page 102, writes of the Belgrade pronunciation of these 'subsequent longs' the following.

а. - Ненаглашене дужине у последњим слоговима наставака именске и глаголске промене се по правилу скраћују, упор.: бабе м. бабѐ, ... жена м. жѐна, ... руком м. рукѐм, драги м. драгѐи, нѐсим м. нѐсѐм, ... и сл.; упор.: (руку) за руку м. за рѹку, ... итд., али шѐшѐр, дѐвѐјка, трѐвца, јѹначе и сл. као у књижевном језику.

/Footnote 1)/ Поменута отступања дошла су до Београда из суседних говора. Тако је најзначајнија црта београдске књижевне акцентуације, скраћивање неакцентованих дужина у великим размерама позната већини војвођанских говора; у косовско-ресавском скраћене су све неакцентоване дужине, а у призренско-тимочком све дужине уопште, како акцентоване тако и неакцентоване.

Meillet and Vaillant in their "Grammaire de la langue serbocroate", No. 53, on p. 28, state the following:

Les longues tendent à se réduire, les longues inaccentuées se réduisent presque totalement, la longueur des syllabes finales a tout à fait disparu. Sous l'accent, la longueur, variable, dépend de l'accent de phrase. Les longues sont généralement un peu réduites, tout en restant distinctes des brèves: ce sont des "demi-longues". Mais selon les cas, la vivacité du débit ou la volonté d'insister sur un mot, ces "demi-longues" peuvent être abrégées encore, ou au contraire sont allongées. Ces faits sont variables selon les sujets parlants: la distinction des longues et des brèves et des intonations existe encore dans la langue des gens cultivés de Belgrade et de la population ancienne de la ville, mais elle est souvent dans la langue parlée plus virtuelle que réelle. Le sujet parlant sait s'il a affaire à une syllabe accentuée longue ou brève et en connaît l'intonation, mais il n'en fait pas toujours également sentir la longueur et le ton. Dans la langue vulgaire, très influencée par les parlers du sud et de l'est, le système est tout à fait brouillé.

### (III) Stress.

As mentioned already (p. 32), some authorities

such as Fry and Kostić in their "Serbo-Croat phonetic reader" distinguish degrees of stress, maintaining that there is a difference in the strength of expiration between " and ` , for instance. D. Jones in his book "The Phoneme" has accepted their statements, though, as mentioned already, he considers that in Serbocroat stress is subsidiary to pitch. G. L. Trager makes further distinctions in his article "Serbo-Croatian accents and quantities" and considers stress to be the dominant feature in Serbian accents (see pp. 29 and 30). The present writer, while admitting the difference of stress between " and ` , agrees with Professor Jones. But as we are here dealing with the accents not in individual words pronounced separately or only in final position in sentences, but with words pronounced in sentences of various kinds (questions and statements), these words being in various positions in these sentences, and under varying degrees of emphasis, we consider that from our point of view single words outside any context of situation are in a sense abstractions and a discussion of their degrees of stress is for us of less importance as they are not part of connected speech. In any case, as we have tried to show, word stress in Serbian is inextricably combined with pitch and length in the accents.

(IV) Enclitics.

Finally, mention should be made of the proclitic and enclitic words in Serbian. These words which are always unemphasized have no accent or intonation, though they may retain their length, and, according as they are proclitic or enclitic, form one group with the succeeding or preceding word, being pronounced as though they were part of that word. Proclitics are the subordinating conjunction 'da', the negative 'ne' and the monosyllabic prepositions. 'Ne' and the prepositions may 'take over' the stress of the succeeding word,\* provided that word bears a falling accent; but if that syllable is also long and bears the accent ^, it retains that length: e.g. kòd kuće from kod kŭće, = at home, but kòd nās, = at our house, nè znām, = I do not know; the same applies to prepositional prefixes with verbs: e.g. pòhvālīm, = I praise (pfv.), cf. hvālīm, but potrésēm, = I shake, move, (pfv.). But this accent shift is not invariably made by all speakers in the case of the negative and the prepositions, and most grammars do not indicate whether the "shifted" accent should be marked ` or `` (see Maretić (No. 48), "Gramatika hrvatskoga ili srpskoga književnog jezika", p. 129). Mikkola in his "Urslavische Grammatik", Vol. I (No. 6 ), states that it

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\* Similarly in English one can say: I am going with him, stressing 'with' and not 'him'.

depends on the original intonation of the word concerned as to which accent is used in such instances in modern Serbian (see § 100, b, pp. 130-131). In contemporary Belgrade pronunciation these accent shifts are tending to disappear in the speech of the younger generations.

The main enclitics are the interrogative particle 'li', which invariably stands second word in a sentence, taking precedence over all other enclitics, and the auxiliary verbs for forming the Past and Future tenses and the Conditional Mood, and finally the monosyllabic, unemphatic personal pronouns, e.g. Pètar ga viđi, = Peter sees him, já sam ga viđeo, = I have seen him. When several enclitics follow each other, according to correct usage they must be in the following order: 1. interrogative particle (if any), 2. auxiliary verb, 3. Genitive personal pronoun (rare), 4. Dative personal pronoun, 5. Accusative personal pronoun, except that the auxiliary verb 'je' must follow the personal pronouns. When a proclitic immediately precedes an enclitic, it takes a stress, e.g. néću (written together), = I will not, nĩsam (written together), = I have not (been), ná me, = on to me, zá se, = by itself.

The above paragraphs on word tone in Serbian are intended as an account of the traditional teaching about word accents or tones as given in the various authoritative

grammars mentioned in our Bibliography. This teaching is based on the mainly aural observation of scholars of previous generations, commencing with Vuk Karadžić, and on the work of scholars less fortunately equipped with apparatus than those of the modern era. It is by no means wholly without foundation.

C. Restatement of the problem.

Until quite recently it was assumed that the word accents (or tones) in Serbian, as described by scholars from Vuk Karadžić to those of recent times, are realized in speech every time a word is uttered, irrespective of sentence intonation, emphasis, etc.\* In other words it has been

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\* See Belić, (No. 45 ), p. 227, Из новије акцентуације:  
С друге стране, треба истаћи да је та особина штокавског акцента од великог значаја за реченицу: индивидуални акценти речи у реченици се не мењају, они су чврсто усађени у речима. Може се десити да се који акценат у извесном положају у реченици изостави или овлаштније изговори, али се он у њој не мења, сем у приликама тачно одређеним: када какав предлог, свезица или прилог који се осећају као целина са речју пред којом стоје – приме њен акценат. Ово је добро познато правило нашег језика, па се ја на њему нећу дуже задржавати; ...



supposed that in Serbian the intonation of the sentence ultimately depends on the individual, supposedly fixed, tones of its component words. Only Belić (No.36.) and Miletić (No.39) have in recent times described examples of what they have called the modification or 'adaptation' (prilagođavanje) of the 'word intonation to the sentence melody'. Being handicapped by the lack of adequate, sufficiently sensitive, apparatus, they were unable to investigate the question exhaustively, as Miletić explicitly states (op. cit. No.39, p. 2 (220)). Moreover, Miletić, who largely used himself as his informant, was led astray on the subject of question intonation by his own (in 'yes or no questions'), which was strongly under the influence of Czech and other foreign languages\*, (for he had studied and wrote his Doctor's thesis in Prague). Not so Broch in his "Slavische Phonetik" (No.4), § 255, quoted in full on our p. 21.

As stated earlier, it is precisely the purpose of the present enquiry to investigate whether the realizations or phonetic exponents of the tones of individual words in Serbian are in reality as constant as was originally supposed; or whether the audible realization of these word tones

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\* See No. 14, p. 91 et seq., and some of the illustrations in No. 12.

depends on the intonation pattern of the sentence. The numerous (published) accented texts give an additional stimulus to our enquiry. For example, if in a statement in Serbian the voice regularly falls in pitch at the end, as in English or Russian, will a dissyllabic word with a long (or short) rising accent on its first syllable be pronounced (realized) differently in final position from when it occurs initially or medially? Further: is the accent of a word realized with equal clarity when the word is prominent (stressed) in a sentence and when it is not prominent or emphasized? Miletić (No.39 ), clearly thought it was not, but his examples (for the reasons given by him) are not numerous. Or further: can the interrogative sentence intonation, characterized in Serbian by a steep rise (not necessarily finally), cause a different realization of the word accent from that normal in statements, in a word with a falling accent?

The possibility of different realizations of the word tones was quite apparent to Miletić, with whom the writer had discussions on the subject in 1947. But in his opinion, Miletić in his published materials did not go nearly far enough.

As the reader will see, we are here enquiring into the exponents at the phonetic level of a fixed system

of accents with moving pitch, which by themselves can differentiate words, as we have shown on pp.27-9, on the phonological level. The phonological system, fixed and studied for at least a hundred and fifty years, it would be rash to question. But we shall try to show in the following chapters how, for a certain class of words, it is realized in various types of connected sentences. The phonological system is not 'heard'; it is, in a sense, an abstraction. What we hear, on the phonetic level, in connected speech are its various exponents. These are our main concern.

CHAPTER III - GENERAL DESCRIPTION OF THE METHOD  
OF SOLUTION HERE USED.

A. Test words (inserenda).

Đuro Daničić in his "Srpski akcenti" (No. 1), has shown the many possible accent patterns of Serbian words, depending as they do not only on the four pitch variations possible on the accented syllable (if initial), but also on the number of syllables in the word and which syllable bears the accent, and also on the pattern of subsequent long syllables. For the purpose of this enquiry we have limited ourselves to investigating thoroughly only one type of word: dissyllabic third persons singular of the present tense of verbs, accented, as they only can be, on the first syllable (see my p. 28) with one of the four accents. By so limiting ourselves we have investigated strictly comparable and frequently used words, rather than taking words belonging to different grammatical categories which may have different syntactical and phonetic functions even though they may bear the same accent in the dictionary.

B. Test sentences (frames).

It must be borne in mind that owing to the inflected character of the Serbian language, word order is much freer in Serbian than in English; and more variations,

with different words made prominent,\* are possible in Serbian than in a language with very little flexion such as English, which depends more on a fixed word order or on a familiar intonation to convey different implications.

In order to make our investigation as realistic as possible and as near as possible to conversational language, we have used a variety (about fifty) of sentences all of which make sense and are constructed in normal conversational style, be they statements or questions. From these we have selected 13 of the simplest for photographing their tracings on the oscillograph/<sup>while using</sup> the tone-analyser, 7 for statements and 6 for questions. Owing to the importance we have attached to the sense value and normality of our sentences in all the permutations, we have confined ourselves to investigating the various exponents in speech (pronunciations) of four typical verbs only, which have the four contrasting accents. We not unreasonably suppose that mutatis mutandis, by altering, if necessary, the component words of

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\* See also Meillet et Vaillant (No. 53), p. 288, § B.

Ordre des mots: A peu près constant dans les phrases qui n'expriment pas de sentiments vifs, l'ordre des mots est souple quand la phrase est expressive. D'autre part, et surtout dans la langue littéraire, des raisons de rythme interviennent en une certaine mesure.

the sentence, e.g. the subject and the object, another verb with the same tone, in the same position and with the same degree of prominence would behave and be realized in the same way. We do not, however, by any means presume that we have provided the answers for other categories of words, such as nouns or adjectives, for which we consider further enquiries are necessary. It may well be that words of other grammatical categories, with syntactical functions different from those of verbs, have a different set of exponents for the four accents in connected sentences.

C. The informant.

Our informant, Dr. Milka Ivić, born in Belgrade in 1923, was chosen for her typical and, at the same time, clear pronunciation and can, without hesitation, be taken as typical in her speech of the educated inhabitants of Belgrade of the younger generation. She gave a remarkably even and well-enunciated reading of some 500 rather repetitive sentences with little signs of fatigue, and our thanks are here again most warmly expressed to her for her patient and painstaking assistance. The large number of sentences read precludes all possibility of faked or unnatural word tones specially 'put on' for our test.

D. The apparatus used.

The apparatus used was as follows:-

- (1) a tape-recorder, for recording the material;
- (2) an oscillograph, giving (a) the oscillogram of the word  
(i.e. the oscillograph's  
total reaction to all noise),  
(b) a 'tonogram', showing the  
oscillograph's reaction to  
voice pitch only, (mainly  
the fundamental), produced by..
- (3) a tone-analyser, invented by Mr. H. J. Adam in the  
Laboratory of the Department of Phonetics of the School  
of Oriental and African Studies, University of London;
- (4) a high speed camera for photographing the parallel  
oscillograms and 'tonograms' produced on the oscillograph  
screen.

The following is a technical description,  
contributed by Mr. Adam, of the tone-analyser mentioned  
above.

The tone analyser used to produce the tone  
graphs shown was the early experimental model of what is  
now a far more highly developed machine. A number of  
imperfections and undesirable features have now been  
eradicated.

It now consists basically of a panel of thin  
phosphor-bronze reeds; each reed is tuned to vibrate at

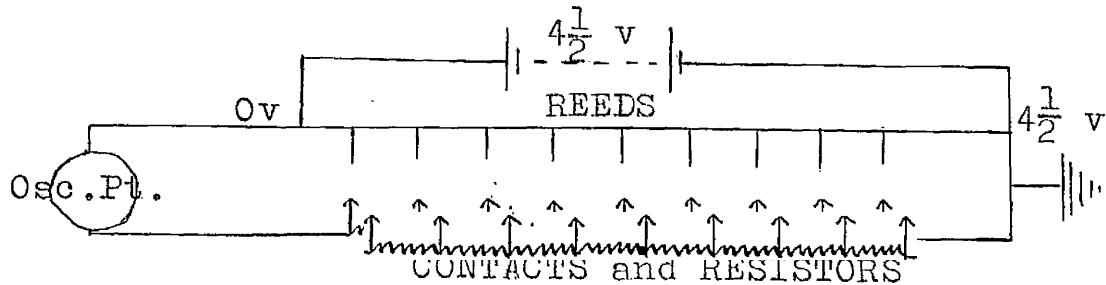
a known frequency, the whole range of the panel is from 80 to 250 cycles per second. An electro-magnetic coil is attached to the centre of the panel. When the coil is energised from an external source, e.g. a recording or microphone and amplifier, any reed is caused to vibrate when the resonant frequency of that reed is applied.

A low voltage dry battery ( $4\frac{1}{2}$  volts) is applied across the reeds, the lowest reed being at zero P.D. and the highest reed at maximum P.D.

Each reed has its own electrical contact and between each contact is a resistor. When a reed vibrates it completes a circuit with its contact and a voltage is applied to an oscilloscope tube, causing the oscilloscope beam to be moved across the screen according to the voltage applied, thus a low frequency will move the beam a small amount while a higher frequency will cause a movement correspondingly greater.



Diagram of the circuit of the  
tone-analyser



E. Method.

The visual results thus obtained have at all stages been checked and collated with the aural impressions obtained by the writer from his recordings. Thus for the first time direct aural impressions have been corroborated by direct visual recordings of the pitch aspect of speech only, avoiding all complicated calculations and graph drawing, which can often be subject to a considerable margin of error.

The test sentences used are of the constant 'frame' type, the same words being used combined in turn with each 'inserendum' or test word, which in turn appears medially, initially and finally, stressed and unstressed, first in 7 statements, then in 6 questions. These sentences involve

the minimum of variable imponderabilia in the form of surrounding material not investigated. We give below the full text of all the frames, with their translations, followed by a detailed commentary, and 'analysis of the frames'.

F. Text of the frames (test sentences) with their translations, commentary and analysis.\*

#### STATEMENTS

These are characterized by a falling intonation. They always have a final fall in pitch and usually also have a gradual fall in pitch of successive words, as stated on p. 23-5, unless one of the words is emphasized and the pitch consequently rises on it.

1. Otac tréše\*\* krůšku.                      Medial o. i. o.

Father shakes the pear tree. (No prominent word marked)

\*\* For tréše, substitute in turn the following alternative inserenda in this and all the following statements and questions: hváli = praises, ima = has, vidi = sees.

This is a 'neutral' statement with no word prominent, such as often occurs in a description.

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#### \* Analysis of the frames

Legend: i = inserendum, o = stressed syllable,  
          . = unstressed syllable

' indicates prominent word

— shows enclitic syllable as following

'Medial', 'initial' and 'final' refer to the position of the inserendum in the sentence.

2. Otac tréše krušku.                      Medial ó. i. o.

Father shakes the pear tree.

3. Otac tréše krušku.                      Medial o. í. o.

Father shakes the pear tree.

Nos. 2 and 3 show the two extremes possible in an emphatic statement which stresses one particular word: in No. 2 the first word is stressed followed by the inserendum (unstressed) in its weakest position; while in No. 3 the medial inserendum itself is stressed showing its strongest prominence. Thus Nos. 2 and 3 present the greatest contrasts among the possible stress combinations.

4. Tréše je otac.                      Initial í. . o.

Shakes it father (Nominative), i.e. Father is shaking it.

5. Tréše je otac.                      Initial i. . . ó.

Shakes it father, i.e. It is father who is shaking it.

Initial Nos. 4 and 5 again present the two extreme possibilities in a statement consisting of two breath groups (only). Here the third element of Nos. 1, 2 and 3, the object, is reduced to an enclitic which is joined to the preceding word in pronunciation. In No. 4 the inserendum is stressed, in No. 5 the second element (the subject) is stressed.

N.B. With the inserendum occurring initially a 'neutral' sentence without emphasis would not normally occur in

conversation or prose in Serbian.

6. Otac je trése. Final o. . i.

Father is shaking it (and not e.g. climbing it).

7. Otac je trése. Final ó. . i.

Father shakes it, or: It is father who shakes it, is shaking it.

Final Nos. 6 and 7: here the enclitic object is used again, thus again giving the two simplest possible sentences composed of a transitive verb and a subject. No. 6 has the final inserendum stressed, while in No. 7 the stress is on the first (trisyllabic) element. Here again with the inserendum in final position, a completely 'neutral' sentence without emphasis would be unusual.

#### QUESTIONS

In questions expecting the answer 'yes' or 'no', which in Serbian conversation are normally expressed by intonation only (the only other normal sentence intonation in the language, see our pp.23-6) by making the word round which the question centres, prominent with a sharply rising intonation, there can be no 'neutral' utterances. (These would, if required, be expressed by "Da li ...?")

8. Otac trése krušku? Medial o. i. o. ?

Father shakes the pear tree?

9. Otac trése krušku? Medial ó. i. o. ?

Father shakes the pear tree? i.e. Is it father who shakes the pear tree?

Medial No. 8 shows the inserendum stressed medially, while No. 9 gives it unstressed medially after the stressed initial word. Here we have the two extreme possibilities in questions consisting of three elements, subject, verb, object (cf. Nos. 2 and 3).

10. Trése krušku? Initial í. o. ?

(He) shakes the pear tree?

11. Trése krušku? Initial i. ó. ?

(He) shakes the pear tree? (and not the apple tree?)

Initial Nos. 10 and 11: here the two simplest and extreme possibilities are arrived at with the subject being implied and not explicitly mentioned - a normal type of question in Serbian. (In these cases the pronoun subject is only used when it is emphasized or explanatory). Thus in No. 10 the inserendum (verb) is stressed, while in No. 11 the object following the inserendum bears the stress.

12. Ôn krušku trése? Final o o. í. ?

He the pear tree shakes? i.e. He actually shakes the pear tree?

13. On krušku trése? Final o ó. i. ?

He the pear tree shakes? i.e. It is the pear tree that he shakes, is it?

In Final Nos. 12 and 13 with the inserendum in final position the Nominative pronoun is used for clarity and occurs first, followed by the object which is unstressed

in No. 12 (the stress being on the final inserendum, the verb), and stressed in No. 13.

TOTAL VOCABULARY OF ALL FRAMES

(INSERENDA)

òtac (Nominative) = father

trése = shakes

krùšku (Accusative) = the pear tree

hvâli = praises

je (Accusative feminine, enclitic) = it

îma = has

ôn (Nominative) = he

viđi = sees

N.B. In the recordings Nos. 10 and 11 precede Nos. 8 and 9.

On the whole the frames have been chosen from the normal syntactical constructions used in conversation, avoiding such foreign constructions as: Nominative pronoun + verb + Accusative object, and constructions with two unemphasized disyllabic words in succession before the stressed word, it being realized that these could be increased in number almost ad infinitum without adding any information to our investigation.

From the above it will be observed that variations are arrived at in our frames by the following features:-

(1) The opposition of statement intonation, characterized invariably by a falling pitch on the final syllables to question intonation, which is characterized by a steep rise on the accented syllable of the word emphasized in the question followed by a fall in the subsequent syllable or syllables or in the second half of (falling) monosyllables.

(2) The different positions of the inserenda, viz:-

- (i) medial, between two words;
- (ii) initial, followed by an enclitic and one other 'full' word, namely the subject;
- (iii) final, preceded by three syllables expressing the subject and the object.

(3) The use of emphasis on and off the inserenda.

When it is not on the inserendum, -

- (i) with the inserendum in medial position, the stressed word precedes;
- (ii) with the inserendum in initial position, the stressed word follows (in the statements, after the enclitic);
- (iii) with the inserendum in final position, in statements the stressed word and the enclitic and in questions the pronoun and the stressed object, precede the inserendum. (See pp. 54-56, Nos. 2, 5, 7 and 9, 11, 13.)

Thus, with the inserendum in medial and final position and unstressed, the stressed word (or word group) always precedes it immediately.

## CHAPTER IV - THE RESULTS OBTAINED

### A. RECORD OF OBSERVATIONS

In the following pages we present the tono-oscillograms of our test sentences in the order of the text of the frames given on pp. 53-56. There are thirteen such test sentences for each inserendum. Below each tono-oscillogram we repeat the text of the sentence and its schematic analysis. Then follows the record of our observations. We give the aural impression first, followed by the result as observed by us on the tono-oscillogram. The particular part which we consider corresponds to the first syllable of the inserendum is to be found between points (a) and (b) marked on the tonogram. These observations concern, of course, the first, accented, syllable of the inserendum. In the third note we give our observation of the second syllable of the inserendum based primarily on the tono-oscillogram/<sup>which</sup>when the results of aural observation are doubtful we have taken to be decisive.

For certain sentences we give two tono-oscillograms when we felt that the first recording did not give a very clear result.

The reader will observe that some tono-oscillograms on the top tonogram line have short thick tracings which the writer has picked out with arrows, thus: ↑ . These



arrows draw the observer's attention to these short thick lines when they appear together with the taller tracings or sometimes by themselves. Careful observation has shown that these short thick lines are always associated with high-pitched syllables in the recordings.

Below each tonogram we have the oscillogram photographed simultaneously. These oscillograms help to identify the vocalic and the voiced consonant elements in the sentences. A time marker of 50~ appears on the base line of most of the tonograms.

Although, as Mr. Adam points out on p. 50, these tono-oscillograms were produced with the aid of the early experimental model of the tone-analyser, we consider the results sufficiently clear and accurate to make any sort of schematic analysis of the pitch changes such as we have given for our earlier examples, e.g. pp. 18-25, unnecessary. We have, however, given a few explanatory remarks on the tonograms for the more difficult parts, indicating hesitations, less obvious rises and falls, etc. 'Tape II' on our pictures indicates a later recording of sentences specially repeated because the original reading or recording of these sentences was for some reason unsatisfactory.

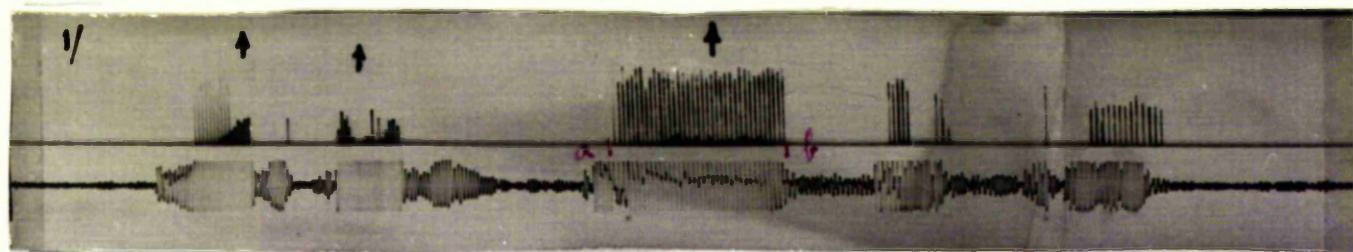
As we are dealing essentially with the spoken language as recorded from our informant, the reader is free, if he so wishes, to listen to the recording which we

have supplied as our Appendices I and IV, which will be found together on the single tape.

TRÉSE



This is the tono-oscillogram of the word trése recorded as an isolate. It clearly shows the reaction of the oscillograph and tone-analyser to the initial consonants tr- which we mark as (c), (d). The vowel é follows between (a) and (b). Due allowance must therefore be made for these initial consonants in interpreting the following tonograms.



trése

No. 1

Òtac trése krůšku.

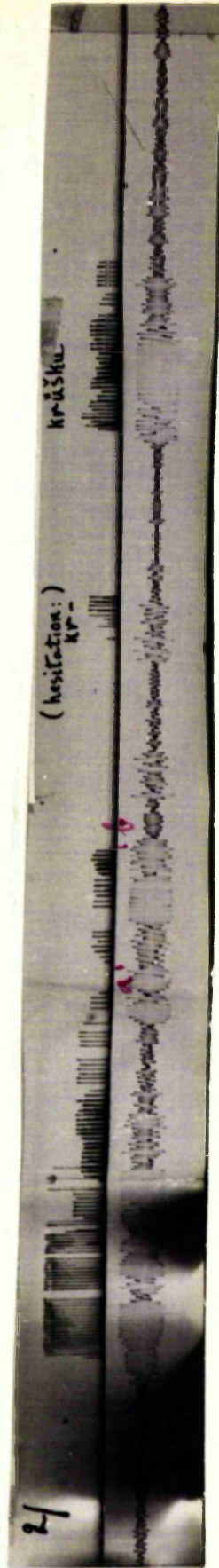
Medial o. i. o.

Inserendum: Medial, uno word stressed in statement

Record of observations      Aural: rise audible

T/O: rise visible

Subsequent syllable lower than first syllable.



tréše

No. 2

Otac tréše krušku.

Medial ó. i. o.

Inserendum: medial unstressed in statement

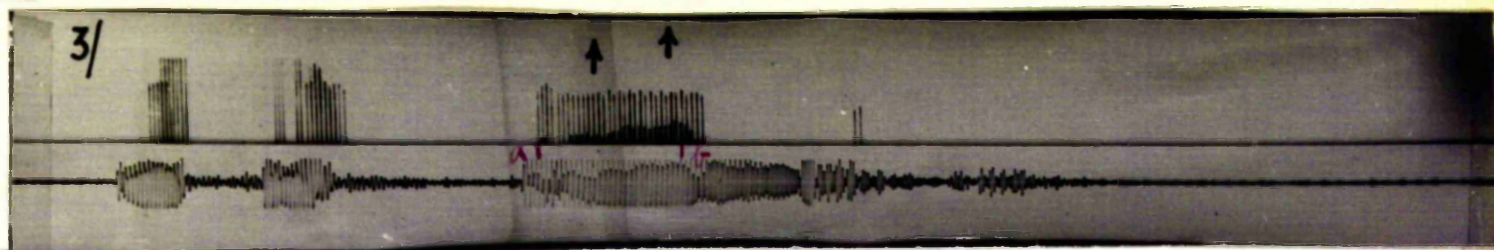
Record of observations

Aural: low level

T/O: rise slightly visible

Subsequent syllable level with first syllable.





trése

No. 3

Otac trése krušku.

Medial o. i. o.

Inserendum: medial stressed in statement

Record of observations

Aural: rise audible

T/O: rise clearly visible

Subsequent syllable lower than first syllable.



trése

No. 4

Trése je otac.

Initial i. . o.

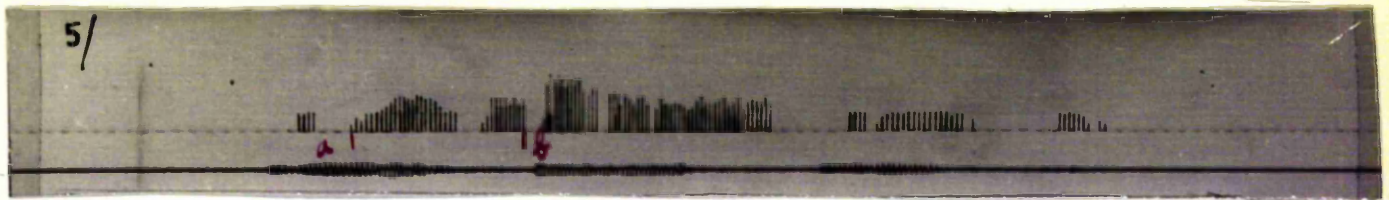
Inserendum: initial stressed in statement

Record of observations

Aural: rise clearly audible

T/O: rise-fall visible

Subsequent syllable lower than first syllable.



trése

No. 5

Trése je otac.

Initial i.\_.ó.

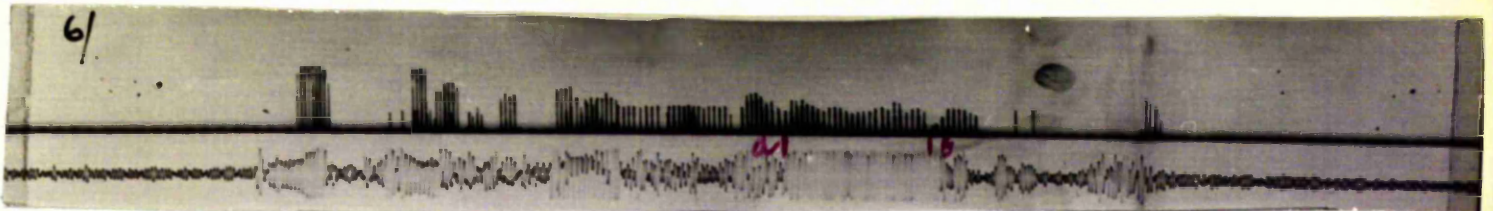
Inserendum: initial unstressed in statement

Record of observations

Aural: rise faintly audible

T/O: rise visible, with break

Subsequent syllable higher than first syllable.



trése

No. 6

Otac je trése.

Final o.\_.í.

Inserendum: final stressed in statement

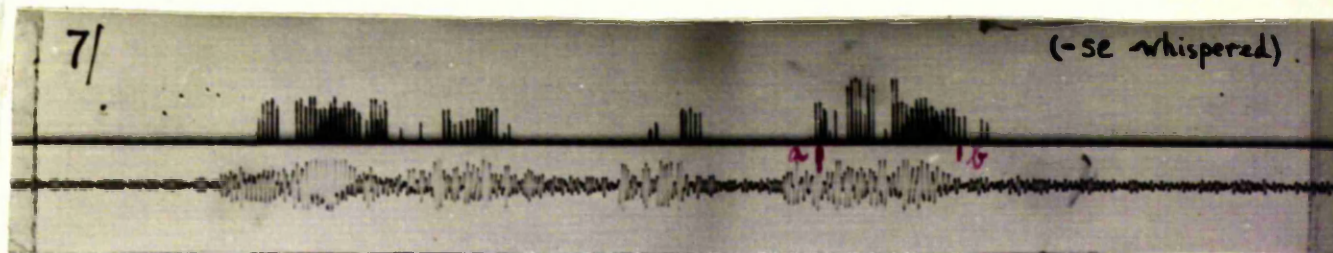
Record of observations

Aural: fall audible

T/O: fall visible

Subsequent syllable lower than first syllable.





trése

No. 7

Otac je trése.

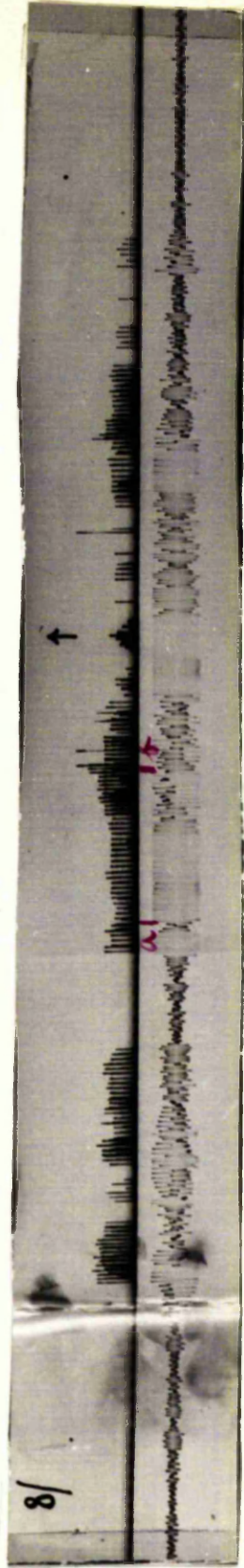
Final ó.\_. i.

Inserendum: final unstressed in statement

Record of observations      Aural: fall audible (low pitch)

T/O: rise-fall visible

Subsequent syllable whispered.



trése

No. 8

Otac trése krušku?

Medial o. f. o. ?

Inserendum: medial stressed in question

Record of observations

Aural: rise clearly audible

T/O: rise clearly visible

Subsequent syllable higher (audibly so) than first syllable.





trése

No. 9

Otac trése krušku?

Medial ó. i. o. ?

Inserendum: medial unstressed in question (stressed word  
precedes)

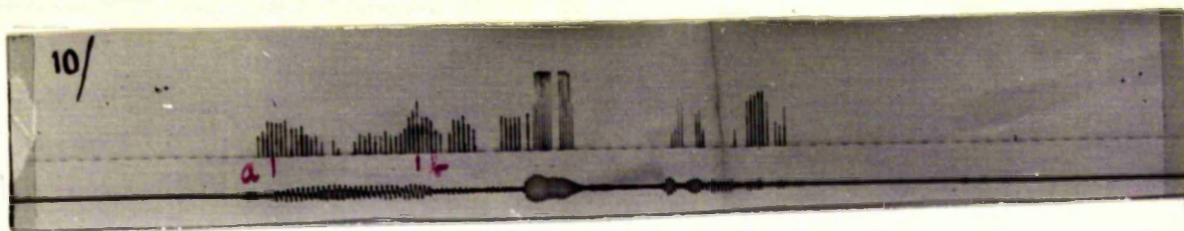
Record of observations

Aural: level, or slight fall?

T/O: fall visible

Subsequent syllable lower than first syllable.





trése

No. 10

Trése krušku?

Initial i. o. ?

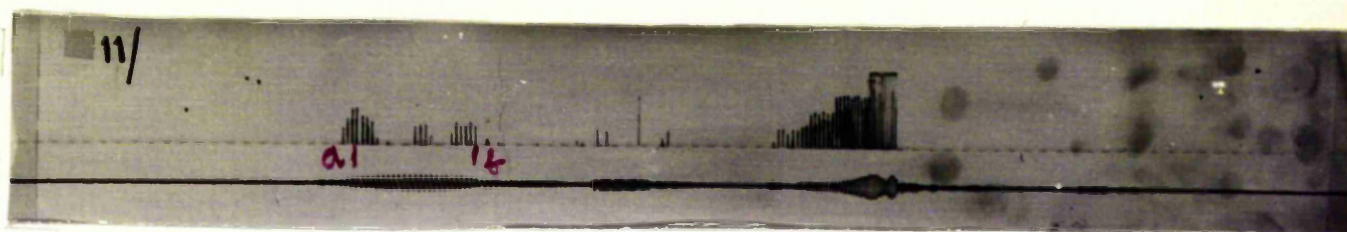
Inserendum: initial stressed in question

Record of observations

Aural: rise clearly audible

T/O: rise clearly visible  
after initial fall

Subsequent syllable much higher than first syllable.



trése

No. 11

Trése krušku?

Initial i. o. ?

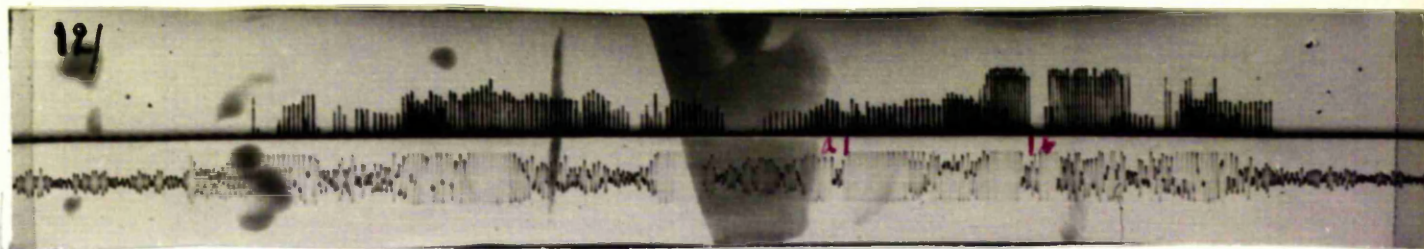
Inserendum: initial unstressed in question

Record of observations

Aural: fall audible (rise on  
following stressed word)

T/O: fall visible throughout  
both syllables

Subsequent syllable lower than first syllable.



trése

No. 12

Ôn krušku trése?

Final o o. í. ?

Inserendum: final stressed in question

Record of observations

Aural: rise clearly audible

T/O: rise clearly visible (with  
a break at the peak)

Subsequent syllable lower than first syllable.





trése

No. 13

On krušku trése?

Final o ó. i. ?

Inserendum: final unstressed in question

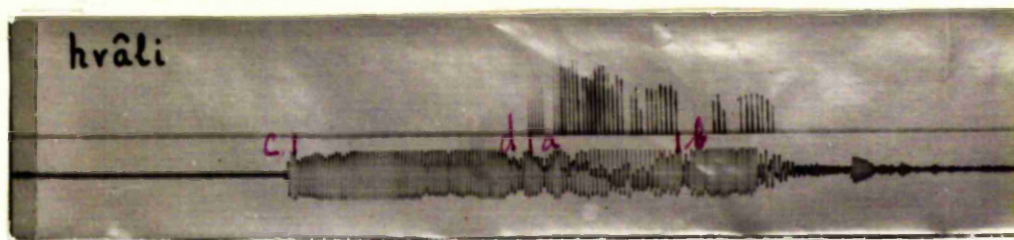
Record of observations

Aural: rise-fall audible

T/O: rise-fall visible

Subsequent syllable lower than first syllable.

HVÂLI



This is the tono-oscillogram of the word hvâli recorded as an isolate. It clearly shows the reaction of the oscillograph and tone-analyser to the initial consonants hv- which are marked as (c), (d). The vowel â follows between (a) and (b). Due allowance must therefore be made for these initial consonants in interpreting the following tonograms.





hvâli

No. 1

Ôtac hvâli krůšku.

Medial o. i. o.

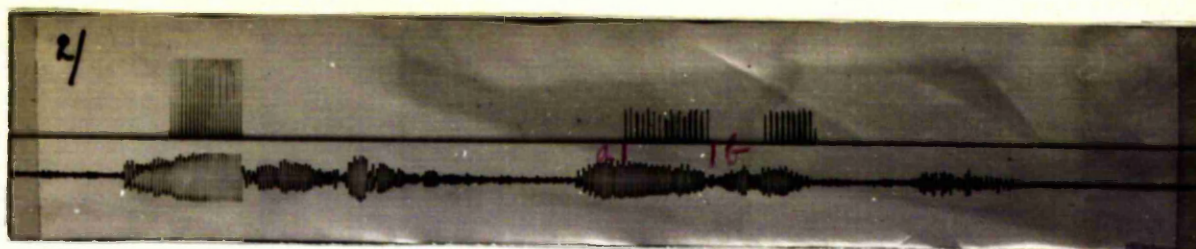
Inserendum: medial, no word stressed in statement

Record of observations:

Aural: fall audible

T/O: fall visible

Subsequent syllable lower audibly and visibly than first syllable.



hvâli

No. 2

Otac hvâli krušku.

Medial ó. i. o.

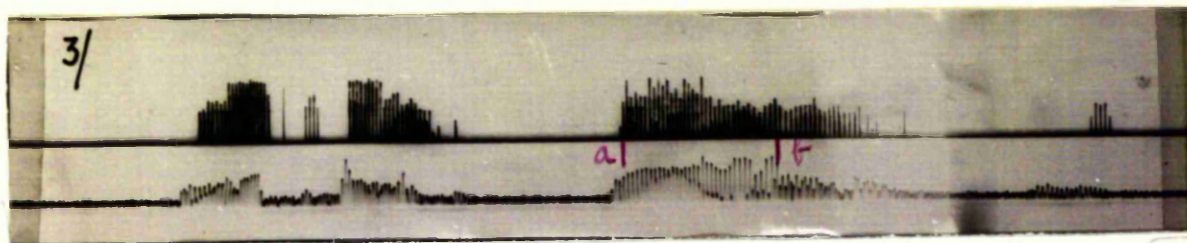
Inserendum: medial unstressed in statement

Record of observations

Aural: level

T/O: visibly level

Subsequent syllable level with first syllable



hvâli

No. 3

Otac hvâli krušku.

Medial o. i. o.

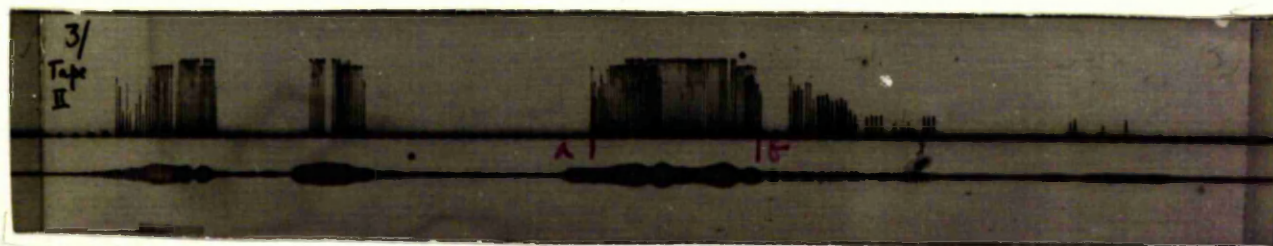
Inserendum: medial stressed in statement

Record of observations

Aural: fall audible in both recordings

T/O: rise-fall visible in both

Subsequent syllable lower than first syllable.







hvâli

No. 4

Hvâli je otac

Initial i. . o.

Inserendum: initial stressed in statement

Record of observations

Aural: fall audible

T/O: rise-fall visible

Subsequent syllable lower than first syllable.



hvâli

No. 5

Hvâli je otac.

Initial i. . ó.

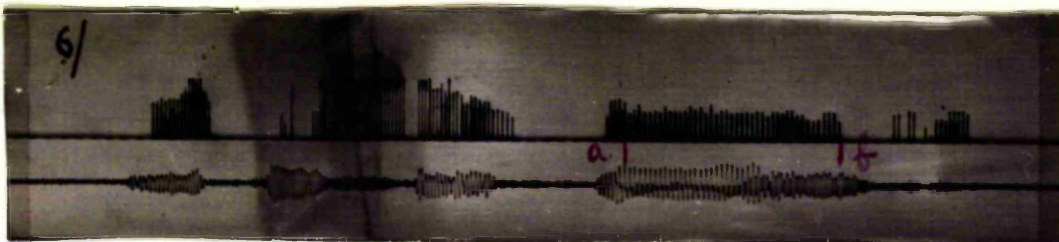
Inserendum: initial unstressed in statement (stressed word follows)

Record of observations

Aural: rise audible

T/O: rise visible

Subsequent syllable higher than first syllable.



hvâli

No. 6

Otac je hvâli.

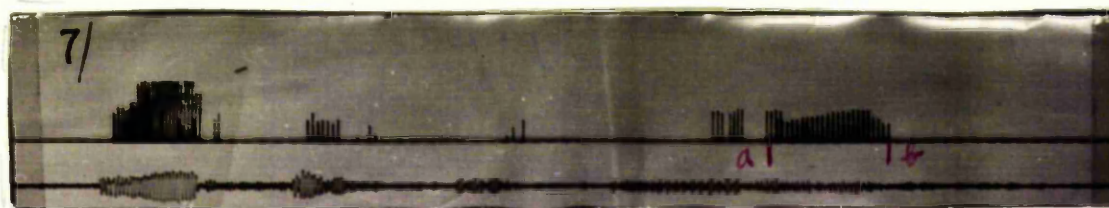
Final o.\_. i.

Inserendum: final stressed in statement

Record of observations      Aural: fall audible

T/O: fall visible

Subsequent syllable lower than first syllable.



hvâli

No. 7

Otac je hvâli.

Final ó.\_. i.

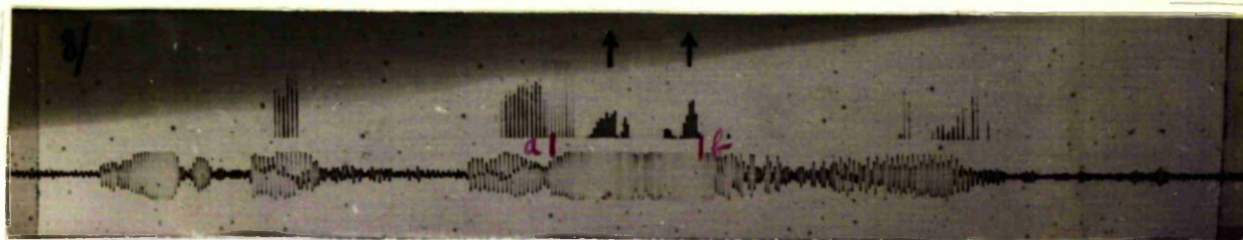
Inserendum: final unstressed in statement

Record of observations      Aural: sharp low fall audible

T/O: low fall visible

Subsequent syllable - creak (not visible)





hvâli

No. 8

Otac hvâli krušku?

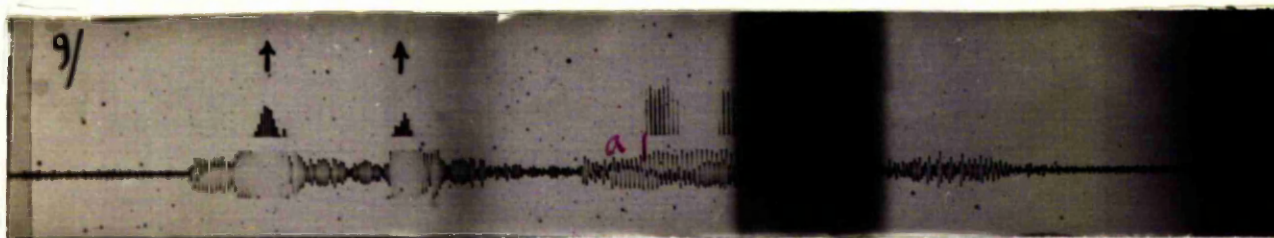
Medial o. i. o. ?

Inserendum: medial stressed in question

Record of observations Aural: rise audible

T/O: rise visible

Subsequent syllable lower than first syllable. .



hvâli

No. 9

Otac hvâli krušku?

Medial ó. i. o. ?

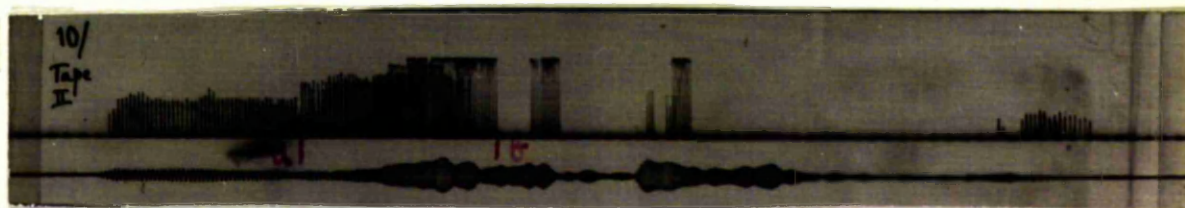
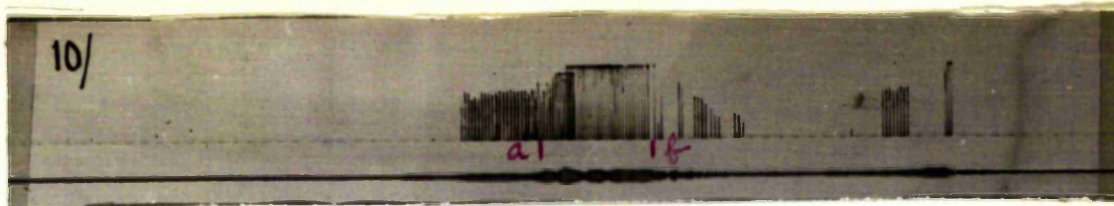
Inserendum: medial unstressed in question

Record of observations Aural: fall just audible

T/O: fall visible

Subsequent syllable lower than first syllable.

This is an imperfect photograph but the fall is just visible in the original on the part that has been overexposed.



hvâli

No. 10

Hvâli krušku?

Initial i. o. ?

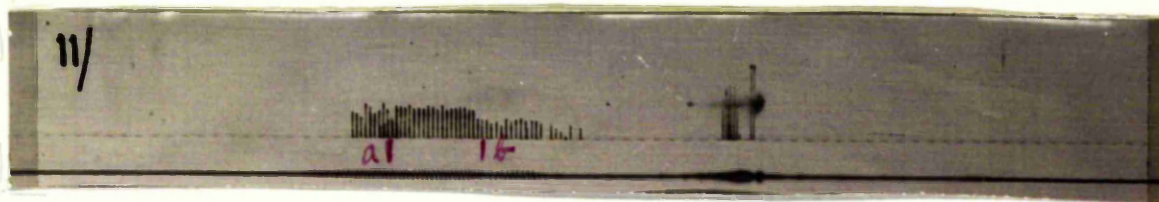
Inserendum: initial stressed in question

Record of observations

Aural: rise audible in both recordings

T/O: rise visible in both recordings

Subsequent syllable lower/level.



hvâli

No. 11

Hvâli krušku?

Initial i. o. ?

Inserendum: initial unstressed in question

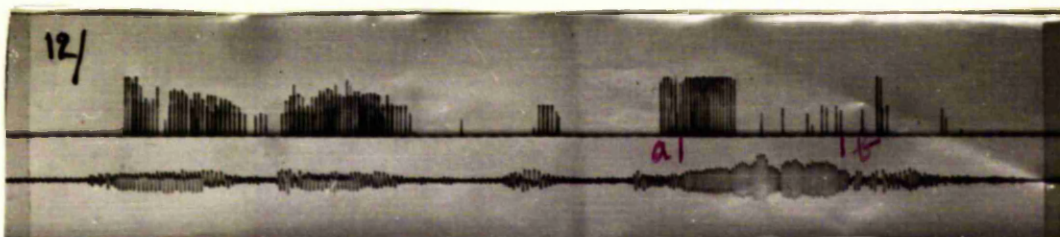
Record of observations

Aural: rise-fall or level?

T/O: weak rise-fall

Subsequent syllable lower than first syllable.





hvâli

No. 12

Ôn krušku hvâli?

Final o o. i. ?

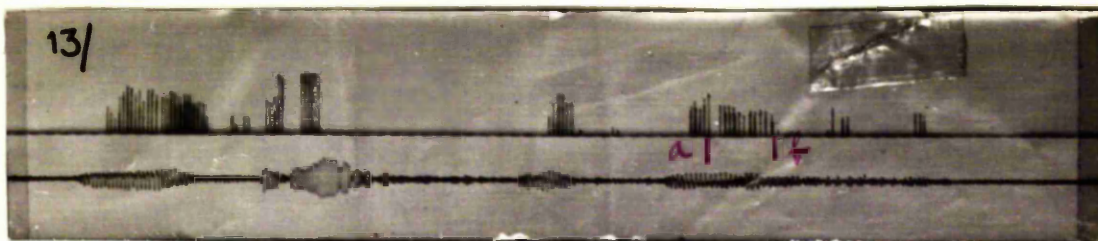
Inserendum: final stressed in question

Record of observations

Aural: steep fall audible

T/O: level and steep fall  
visible

Subsequent syllable much lower than first syllable.



hvâli

No. 13

On krušku hvâli?

Final o ó. i. ?

Inserendum: final unstressed in question

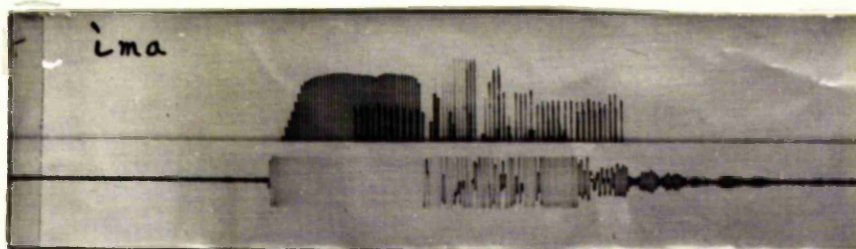
Record of observations

Aural: fall audible

T/O: fall visible

Subsequent syllable lower than first syllable.

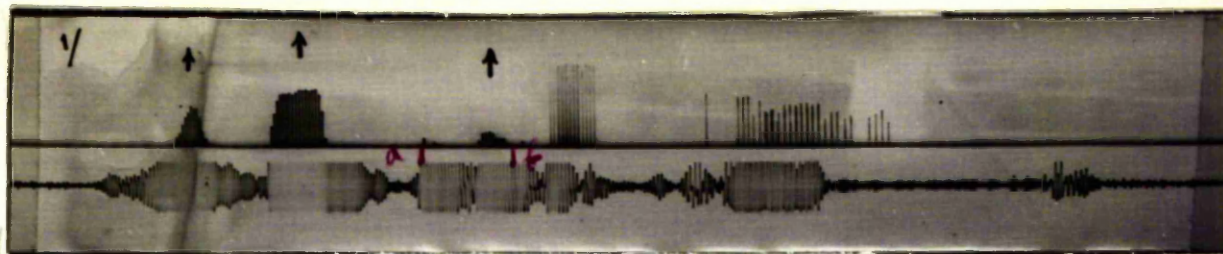
ima



Above is the tono-oscillogram of the word ima. In this case we have a word beginning with a vowel without any consonant or glottal stop preceding; so the beginning of the tracings coincide with the beginning of the vowel. It will be noticed that in the case of this word containing the vowel i the tonogram tracing shows the thick black lines which correspond to high pitch. In the tono-oscillograms which follow, these do not necessarily appear when the word occurs combined with other words in a sentence.

In making the aural observations the writer experienced difficulties owing to the brevity of the accented vowel of this word.





ima

No. 1

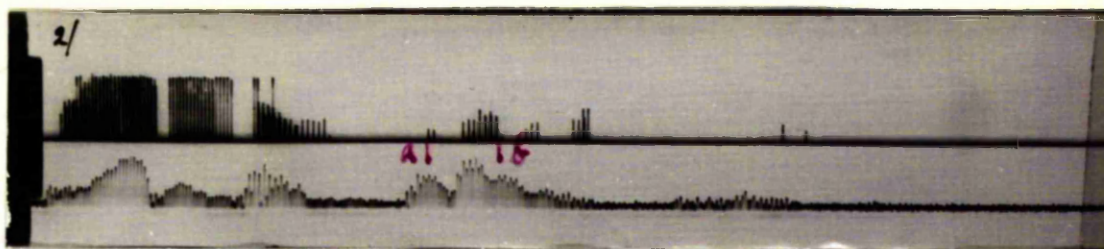
Otac ima krušku.

Medial o. i. o.

Inserendum: medial, no word stressed in statement

Record of observations      Aural: rise hardly perceptible  
T/O: rise visible

Subsequent syllable level? to ear and on the T/O, lower.



ima

No. 2

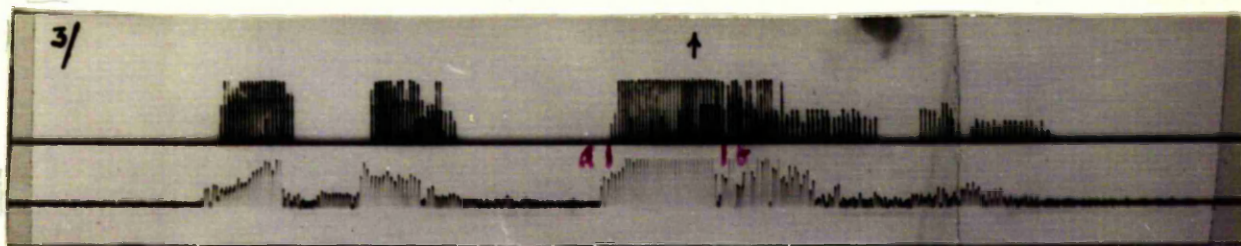
Otac ima krušku.

Medial ó. i. o.

Inserendum: medial unstressed in statement

Record of observations      Aural: rise not perceptible  
T/O: rise visible

Subsequent syllable level? to ear and on T/O, lower.



ima

No. 3

Otac ima krušku.

Medial o. í. o.

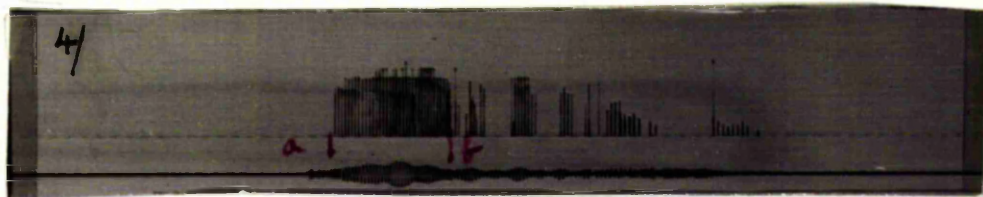
Inserendum: medial stressed in statement

Record of observations

Aural: rise audible

T/O: rise visible

Subsequent syllable level? to ear and on T/O, lower.



ima

No. 4

Ima je otac.

Initial í. \_ . o.

Inserendum: initial stressed in statement

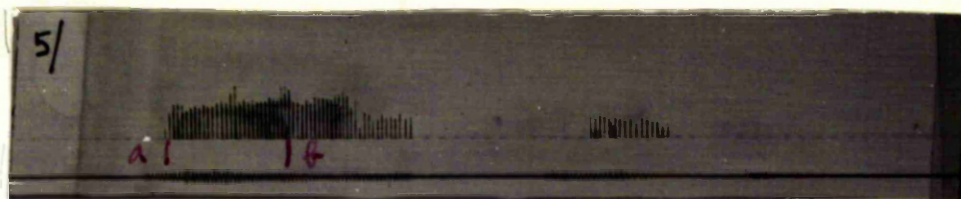
Record of observations

Aural: rise clearly perceptible

T/O: rise-fall visible

Subsequent syllable lower than first syllable.





ima

No. 5

ĭma je otac.

Initial i.\_. ó.

Inserendum: initial unstressed in statement

Record of observations      Aural: rise hardly perceptible

T/O: rise just visible

Subsequent syllable level with first syllable.



ima

No. 6

Otac je ima.

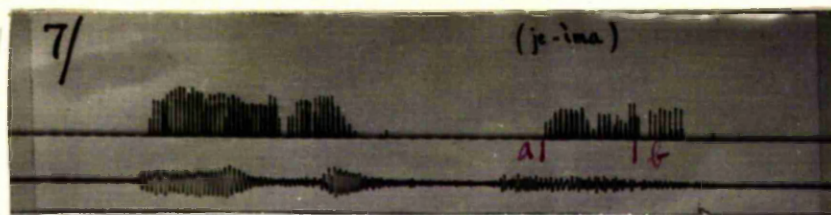
Final o.\_. í.

Inserendum: final stressed in statement

Record of observations      Aural: level?

T/O: slight rise-fall visible

Subsequent syllable lower than first syllable.



ima

No. 7

Otac je ima.

Final ó. . i.

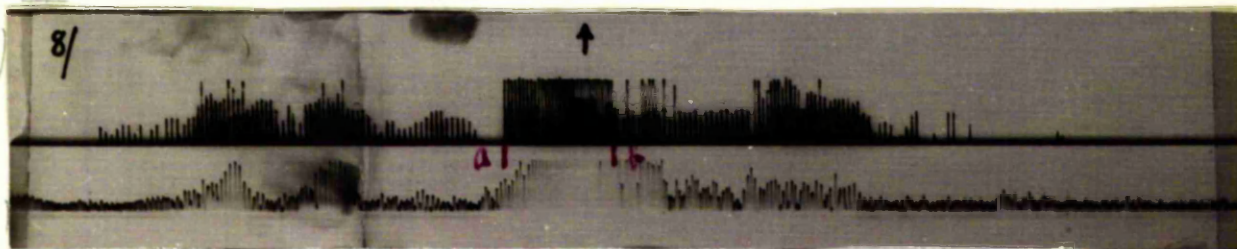
Inserendum: final unstressed in statement

Record of observations      Aural: low creak

T/O: faint rise-fall visible

Subsequent syllable whispered completely.

In this sentence owing to the absence of any glottal stop in normal Serbian the words je ima are pronounced very close together and it is difficult to state exactly where the tracing of the vowel i begins on the tonogram.



ima

No. 8

Otac ima krušku?

Medial o. f. o. ?

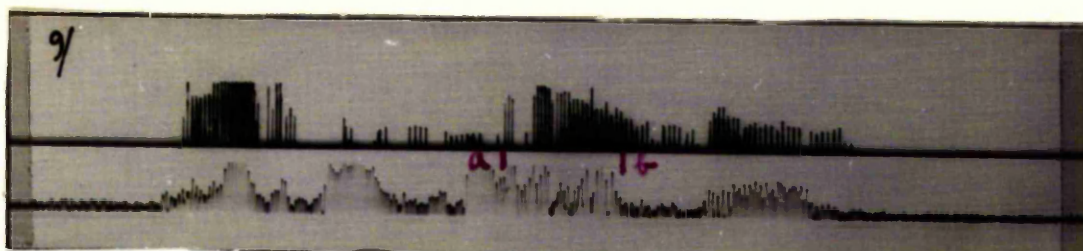
Inserendum: medial stressed in question

Record of observations      Aural: rise audible

T/O: rise visible

Subsequent syllable lower to ear and on T/O, falling.





ima

No. 9

Otac ima krušku?

Medial ó. i. o. ?

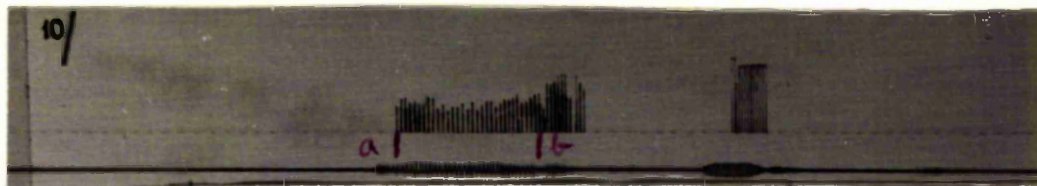
Inserendum: medial unstressed in question

Record of observations

Aural: rise not perceptible

T/O: visible rise-fall

Subsequent syllable lower than first syllable.



ima

No. 10

ima krušku?

Initial í. o. ?

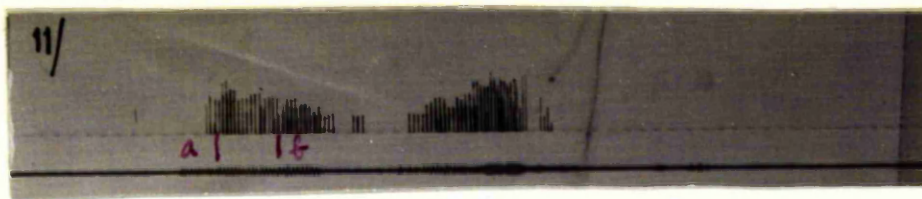
Inserendum: initial stressed in question

Record of observations

Aural: rise audible

T/O: fall-rise visible

Subsequent syllable higher than first syllable.



ima

No. 11

Îma krušku?

Initial i. ó. ?

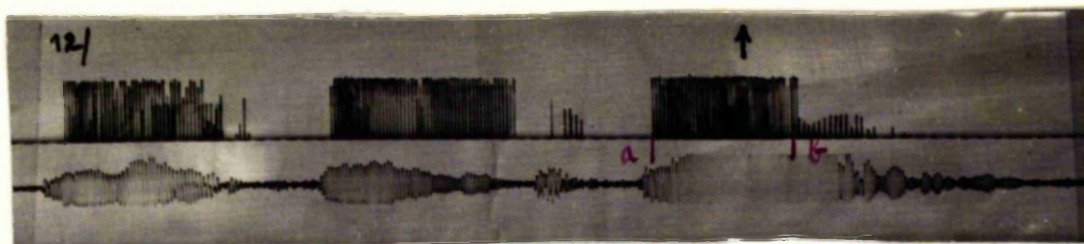
Inserendum: initial unstressed in question

Record of observations

Aural: no rise audible

T/O: fall visible

Subsequent syllable lower than first syllable.



ima

No. 12

Ôn krušku ima?

Final o o. í. ?

Inserendum: final stressed in question

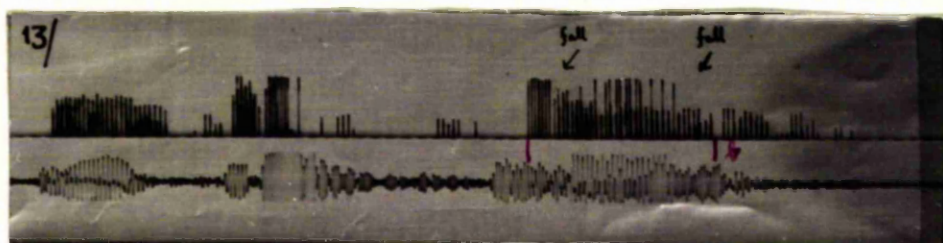
Record of observations

Aural: rise audible

T/O: rise visible followed by  
a fall

Subsequent syllable lower than first syllable.





ima

No. 13

On krušku ima?

Final o ó. i. ?

Inserendum: final unstressed in question

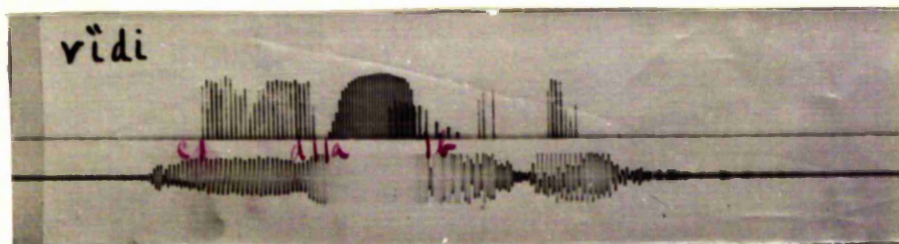
Record of observations

Aural: level?

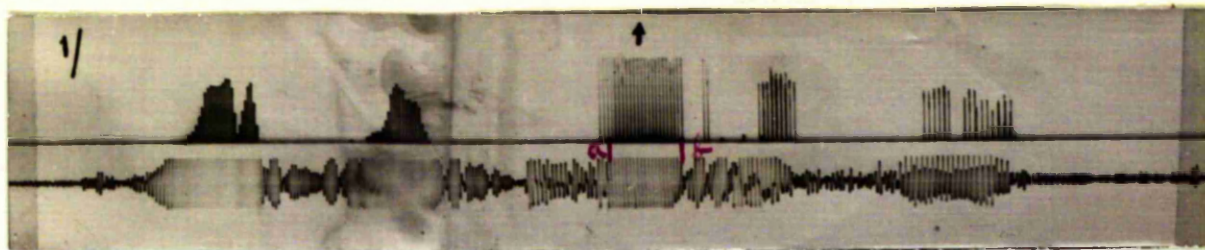
T/O: double fall visible

Subsequent syllable lower than first syllable

VIDI



Above we find the tono-oscillogram of vidi recorded as an isolate. The initial voicing of the v is clearly recorded in both tracings and easy to delimit. Here, as in the case of ima, the vowel i is represented by the thick black lines which are very closely spaced and show a very high pitch for this vowel when the word is pronounced separately. Again, these thick high pitch lines do not appear in the majority of the tonograms which follow.



vìdi

No. 1

Òtac vìdi krùšku.

Medial o. i. o.

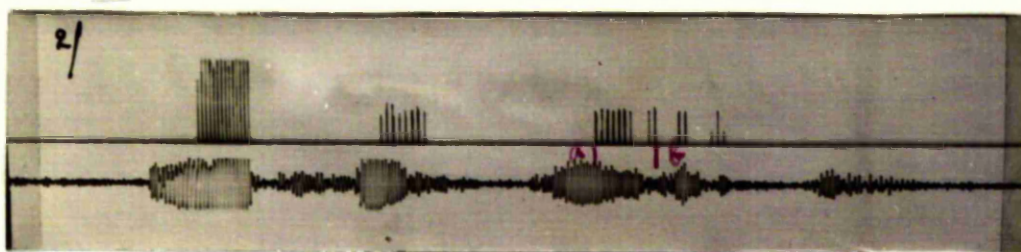
Inserendum: medial, no word stressed in statement

Record of observations

Aural: fall just audible

T/O: fall visible

Subsequent syllable lower than first syllable.



vìdi

No. 2

Otac vìdi krušku.

Medial ó. i. o.

Inserendum: medial unstressed in statement

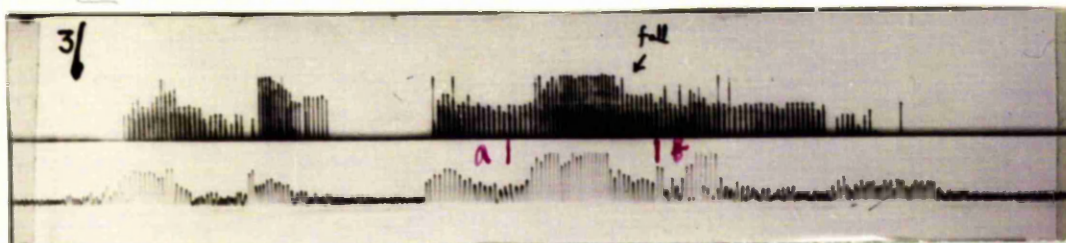
Record of observations

Aural: level

T/O: visibly level

Subsequent syllable level with first syllable.





viði

No. 3

Otac viði krušku.

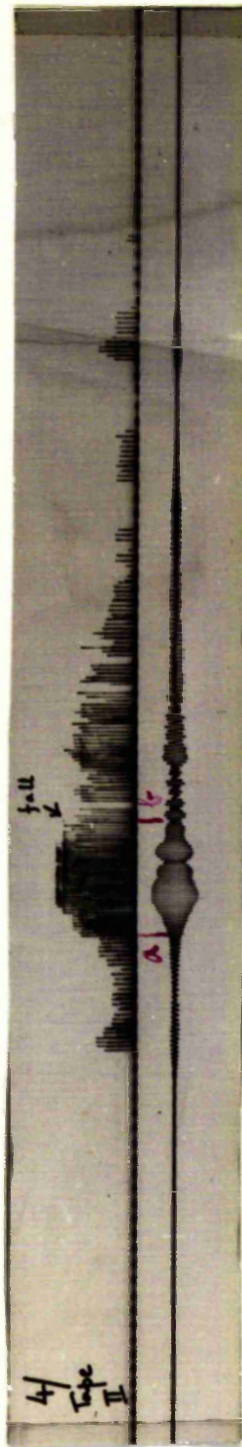
Medial o. í. o.

Inserendum: medial stressed in statement

Record of observations      Aural: fall audible

T/O: fall visible

Subsequent syllable lower than first syllable.



vǐdi

No. 4

Vǐdi je otac.

Initial f. . . o.

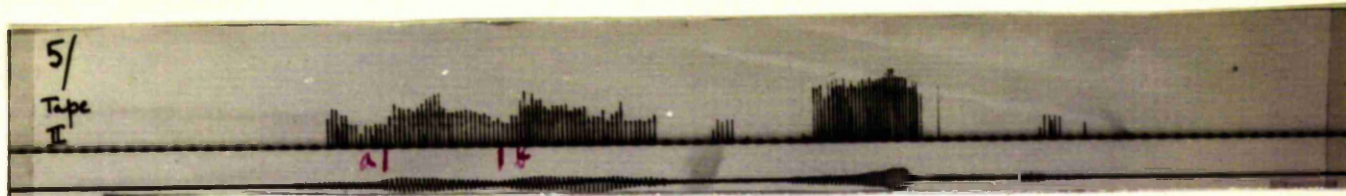
Inserendum: initial stressed in statement (from repeat recording  
Tape II)

Record of observations

Aural: rise-fall audible

T/O: rise-fall visible

Subsequent syllable lower than first syllable.



viđi

No. 5

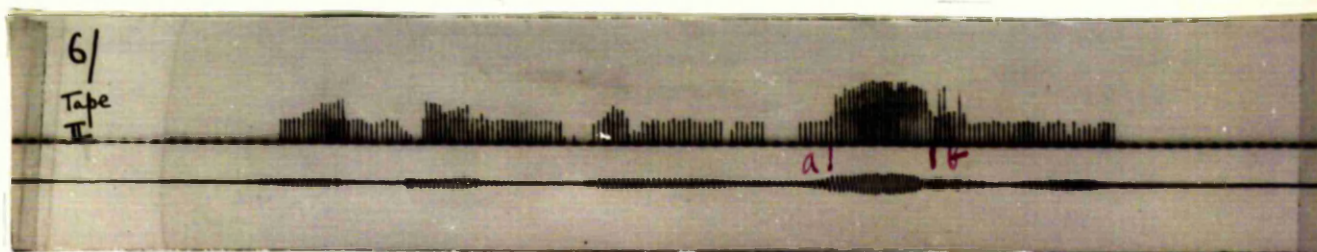
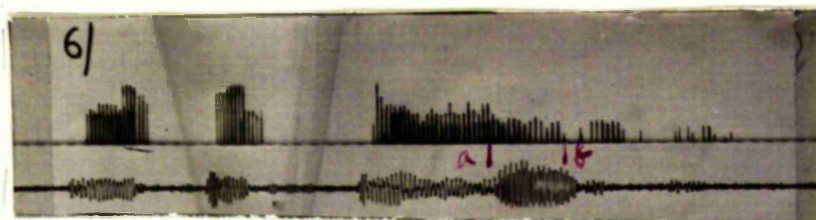
Viđi je otac.

Initial i. . 6.

Inserendum: initial unstressed in statement (from repeat recording, Tape II)

Record of observations      Aural: slight rise? or level  
T/O: rise-fall visible

Subsequent syllable level with first syllable to the ear and on T/O, falling off.



viđi

No. 6

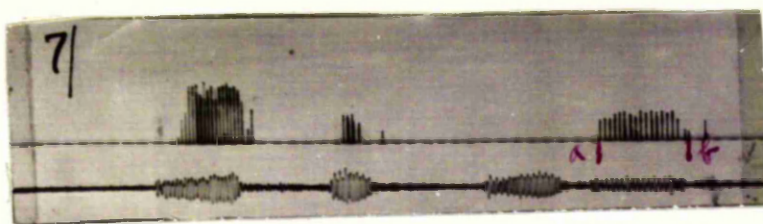
Otac je viđi.

Final o. . i.

Inserendum: final stressed in statement

Record of observations      Aural: Tape I - fall audible  
Tape II - rise-fall audible  
T/O: fall visible (Tape I)  
rise-fall visible (Tape II)  
Subsequent syllable lower than first syllable in both instances.





vīdi

No. 7

Otac je vīdi.

Final ó. . i.

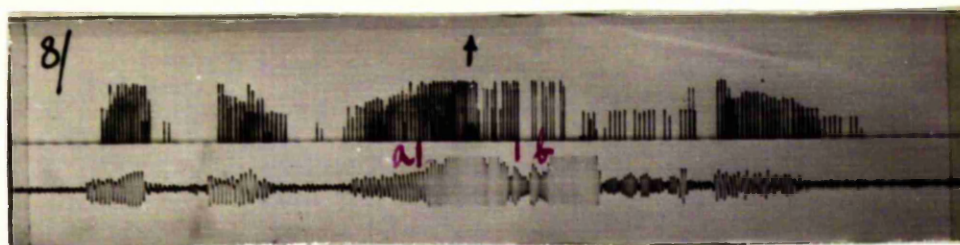
Inserendum: final unstressed in statement

Record of observations

Aural: low level tone

T/O: low rise-fall visible

Subsequent syllable whispered.



vīdi

No. 8

Otac vīdi krušku?

Medial o. í. o. ?

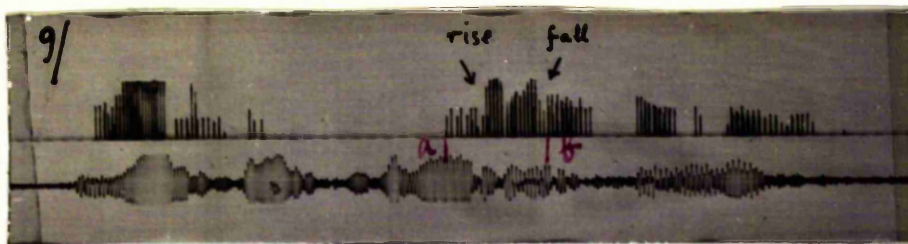
Inserendum: medial stressed in question

Record of observations

Aural: rise

T/O: rise-fall visible

Subsequent syllable lower to ear and on T/O, falling off from preceding syllable.



vīdi

No. 9

Otac vīdi krušku?

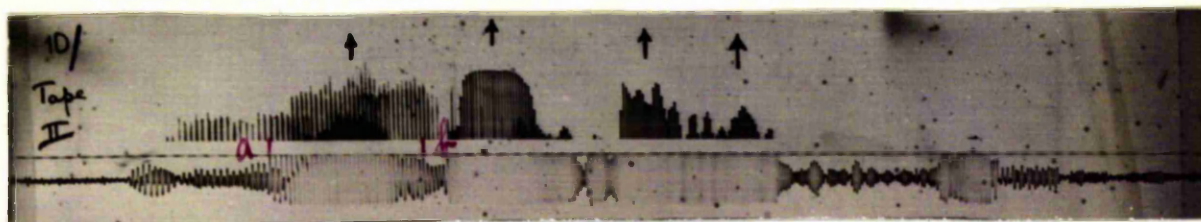
Medial ó. i. o. ?

Inserendum: medial unstressed in question

Record of observations      Aural: level?

T/O: rise-fall

Subsequent syllable falling off.



vīdi

No. 10

Vīdi krušku?

Initial í. o. ?

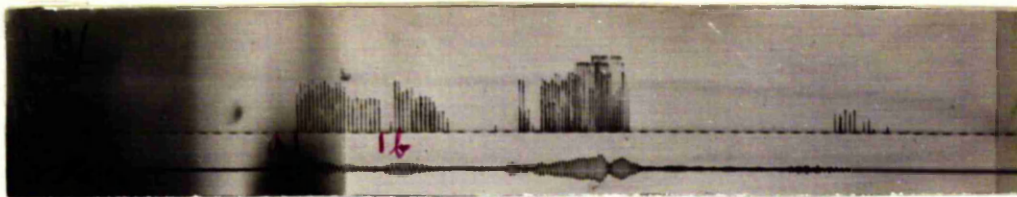
Inserendum: initial stressed in question (from repeat recording, Tape II)

Record of observations      Aural: rise-fall audible

T/O: rise-fall visible

Subsequent syllable higher than first syllable.





vi̋di

No. 11

Vi̋di krušku?

Initial i. ó. ?

Inserendum: initial unstressed in question

Record of observations      Aural: slight fall audible

T/O: fall visible

Subsequent syllable falling off.



vi̋di

No. 12

Ôn krušku vi̋di?

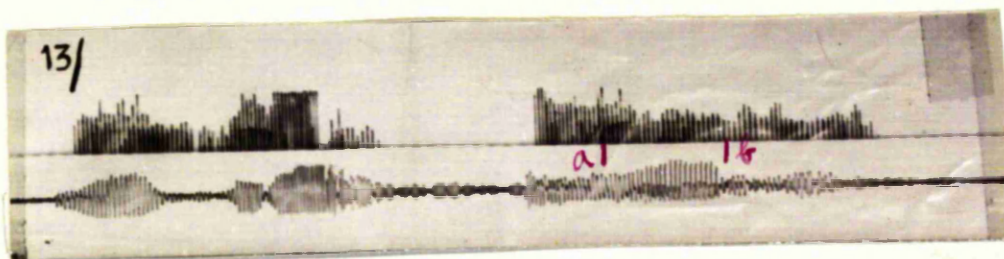
Final o o. í. ?

Inserendum: final stressed in question

Record of observations      Aural: rise-fall audible

T/O: rise-fall visible

Subsequent syllable descending to lower pitch than first syllable.



vidi

No. 13

On krušku vidi?

Final o ó. i. ?

Inserendum: final unstressed in question

Record of observations

Aural: fall audible

T/O: fall visible

Subsequent syllable lower than first syllable.



B. Graphic summaries.

TRÉSE

**Legend:** ✓ indicates a rise; ✕ indicates a fall.  
 ? = doubtful; ↘ indicates a subsidiary fall  
 ↓ or ↘ indicates a subsequent syllable lower in pitch  
 ↑ or ↗ " " " " higher " "  
 — " " " " that is whispered  
 — " " " " that is level  
 in pitch with the preceding syllable

			Aural	T/O	Subsequent syllable
Medial	1. St.	No stress	✓	✓	↓
	2.	Unstr.	?	✓	—
	3.	Str.	✓	✓	↓
	8. Qn.	Str.	✓	✓	↑
	9.	Unstr.	✕	✕	↓
Initial	4. St.	Str.	✓	✓↘	↓
	5.	Unstr.	✓	✓	↑
	10. Qn.	Str.	✓	↘✓	↑
	11.	Unstr.	✕	✕	↓
Final	6. St.	Str.	✕	✕	↓
	7.	Unstr.	✕	✓↘	↓
	12. Qn.	Str.	✓	✓	↓
	13.	Unstr.	✓↘	✓↘	↓



îMA

Legend: as on preceding page.

			Aural	T/O	Subsequent syllable
Medial	1. St.	No stress	?	✓	↓
	2.	Unstr.	?	✓	↓
	3.	Str.	✓	✓	↓
	8. Qn.	Str.	✓	✓	↓
	9.	Unstr.	?	✓↓	↓
Initial	4. St.	Str.	✓	✓↓	↓
	5.	Unstr.	?	✓	—
	10. Qn.	Str.	✓	✓↓	↑
	11.	Unstr.	?	X	↓
Final	6. St.	Str.	?	✓↓	↓
	7.	Unstr.	?	✓↓	↓
	12. Qn.	Str.	✓	✓↓	↓
	13.	Unstr.	?	XX	↓

HVĀLI

**Legend:** ✓ indicates a fall; ✗ indicates a rise.  
 — " a level intonation.  
 ? = doubtful; ↗ indicates a subsidiary rise.  
 ↘ or ↙ indicates a subsequent syllable lower in pitch  
 ↗ or ↙ " " " " higher " "  
 ↘ " " " " that is whispered

			Aural	T/O	Subsequent syllable
Medial	1.St.	No stress	✓	✓	↓
	2.	Unstr.	—	—	—
	3.	Str.	✓	↗✓	↘
	8.Qn.	Str.	✗	✗	↘
	9.	Unstr.	✓	✓	↓
Initial	4.St.	Str.	✓	↗✓	↘
	5.	Unstr.	✗	✗	↗
	10.Qn.	Str.	✗	✗	↘/—
	11.	Unstr.	↗✓	↗✓	↘
Final	6.St.	Str.	✓	✓	↓
	7.	Unstr.	✓	✓	↘
	12.Qn.	Str.	✓	—✓	↓
	13.	Unstr.	✓	✓	↓



VIDI

Legend: as on preceding page.

			Aural	T/O	Subsequent syllable
Medial	1.St.	No stress	✓	✓	↓
	2.	Unstr.	—	—	—
	3.	Str.	✓	✓	↓
	8.Qn.	Str.	X	X*	↓
	9.	Unstr.	-?	✓	↓
Initial	4.St.	Str.	✓	✓	↓
	5.	Unstr.	?	✓	↓
	10.Qn.	Str.	✓	✓	↑
	11.	Unstr.	✓	✓	↓
Final	6.St.	Str.	✓	Tape II (n) ✓	↓/↓
	7.	Unstr.	—	(low) ✓	↓
	12.Qn.	Str.	✓	✓	↓
	13.	Unstr.	✓	✓	↓

\* Here the rise predominates.



# C. COMPARATIVE SUMMARIES:

Comparison of TRÉSE, HVÂLI, 1st and 2nd syllables.

NOTE: For the purposes of these summaries, the visual evidence of the tono-oscillograms has been accepted as decisive in doubtful cases, i.e. where aural evidence is inconclusive.

		TRÉSE		HVÁLI	
<u>Medial</u>					<b>LEGEND:</b>
1. Statement	No stress	R	lr	F	lr
2.	Unstressed	R	ll	L	ll
3.	Stressed	R	lr	RF	lr
8. Question	Stressed	R	hr	R	lr
9.	Unstressed	F	lr	F	lr
<u>Initial</u>					
4. Statement	Stressed	RF	lr	RF	lr
5.	Unstressed	RR	hr	R	hr
10. Question	Stressed	FR	hr	R	lr/ll
11.	Unstressed	F	lr	RF	lr
<u>Final</u>					
6. Statement	Stressed	F	lr	F	lr
7.	Unstressed	RF	lr oo	F	lr oo
12. Question	Stressed	R	lr	LF	lr
13.	Unstressed	RF	lr	F	lr

R = Rise, 1st syll.  
L = Level " "  
F = Fall " "  
lr = lower 2nd syll.  
ll = level " "  
hr = higher " "  
lr = whisp-  
oo pered " "

STATEMENTS		TRÉSE		HVÂLI		TRÉSE		HVÂLI
1. Medial	No stress	R	lr	F	lr			
3. "	Stressed	R	lr	RF	lr	2. Unstressed	R	ll
4. Initial	"	RF	lr	RF	lr	5. "	RR	hr
6. Final	"	F	lr	F	lr	7. "	RF	lr
QUESTIONS							oo	F
8. Medial	Stressed	R	hr	R	lr	9. Unstressed	F	lr
10. Initial	"	FR	hr	R	lr	11. "	F	lr
12. Final	"	R	lr	LF	lr	13. "	RF	lr

**N.B.** The Rise-Falls here recorded for trése are not comparable in tonogram contour with those here recorded for hvâli.



C. Comparison of ..... ÌMA      VÌDI, 1st and 2nd syllables.

Medial

1. Statement	No stress	R	lr	F	lr
2.	Unstressed	R	lr	L	ll
3.	Stressed	R	lr	F	lr
8. Question	Stressed	R	lr	RF	lr
9.	Unstressed	RF	lr	RF	lr

LEGEND, as on  
preceding page.

Initial

4. Statement	Stressed	RF	lr	RF	lr
5.	Unstressed	R	ll	RF	lr
10. Question	Stressed	FR	hr	RF	hr
11.	Unstressed	F	lr	F	lr

Final

6. Statement	Stressed	RF	lr	F/RF	lr
7.	Unstressed	RF	lr	RF	lr
12. Question	Stressed	RF	lr	RF	lr
13.	Unstressed	FF	lr	F	lr

STATEMENTS

		ÌMA	VÌDI		ÌMA	VÌDI
1. Medial	No stress	R	lr	F	lr	
3. "	Stressed	R	lr	F	lr	2. Unstressed
4. Initial	"	RF	lr	RF	lr	5. "
6. Final	"	RF	lr	F/RF	lr	7. "
						RF
						°°

QUESTIONS

8. Medial	Stressed	R	lr	RF	lr	9. Unstressed	RF	lr	RF	lr
10. Initial	"	FR	hr	RF	hr	11. "	F	lr	F	lr
12. Final	"	RF	lr	RF	lr	13. "	FF	lr	F	lr

**N.B.** The Rise-Falls here recorded for ìma ARE comparable in tonogram contour with those here recorded for vìdi and imply a common Rise-Fall pattern used as the realization of either word tone.

## CHAPTER V - CONCLUSIONS

Summarizing the above tables of our observations and comparisons, in respect of the material studied we arrived at the following conclusions:-

A. The so-called Long Rising accent is realized as a long syllable with falling pitch - in questions: when unstressed medially and initially, while when unstressed finally it is realized as a rise-fall;  
in statements: when stressed finally, while unstressed finally and stressed initially it is realized as a rise-fall.\*

B. The so-called Short Rising accent is realized as a short syllable with falling pitch - in questions: when unstressed initially and finally, while when unstressed medially it is realized as a rise-fall and also when stressed finally; stressed initially we have a fall-rise;  
but in statements: both stressed and unstressed finally, and stressed initially it is realized as a rise-fall.\*\* X

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\* and \*\* It will be observed that stressed verbs with ordinarily rising ~~accent~~ commencing a statement have their ~~accent~~ realized as a rise-fall; thus the impression of a

C. The so-called Long Falling accent is realized as a long syllable with rising pitch - in questions; when stressed medially and initially, while when stressed finally, being long, it is realized as a level-fall tone; unstressed initially we have a weak rise-fall; in statements: when initial and unstressed, while initially and medially stressed bit

question intonation is obviated. Otherwise a question might also tend to be suggested by the word inversion ('reversed word order') in which the verb precedes the subject.

✕ A similar result was obtained for the short rising accent by Ekblom. In his article "Beitrage zur Phonetik der serbischen Sprache", (No. 31), on p. 75 he gives a short continuous passage for which he gives his tracings. The final word in this passage is odlèteću, <sup>the accented syllable of</sup> the tracing for/which is substantially a rise-fall. He writes the following à propos of this word: In dem letzten wort der erzählung odlèteću dagegen is absolut genommen das è weder steigend noch fallend, im verhältnis zur tonbewegung des satztons aber ist es steigend. Eine geradezu fallende tonbewegung wäre ja in solchem falle denkbar, eine modifikation der ursprünglichen akzentform, die den von BELIĆ (our No. 28) erwähnten intonationsumschlag, wie er vorzugsweise gewisse dialekte kennzeichnet, illustrieren würde.

is realized as a rise-fall;\* medially  
unstressed we have a level tone.\*\*

D. The so-called Short Falling accent is realized as a short syllable with a rise-fall pitch - in questions: when

\* It should be borne in mind that the so-called Long Falling accent has been heard and described by many authorities, including Vuk Karadžić, as a rise followed by a fall.

See Appendix III.

\*\* Compare Chlumský, in "La mélodie des voyelles accentuées ..." (No. 35), who, with reference to Serbian, on p. 23, writes: Il en est de même pour la voyelle longue à l'intonation descendante en serbe. Pareillement à l'accent rude (akcenat oštar) elle peut avoir le commencement droit suivi d'une descente, ou bien elle peut être descendante d'un bout à l'autre. Exemples: dânak; to je dânak dit deux fois par un même sujet de Mostar (Fig. 33). Donc, comme en tchèque, il n'y a aucune différence essentielle non plus entre les deux sortes d'intonations serbes. /N.B. he is speaking of the two falling accents/ Et, chose intéressante, la mélodie des voyelles longues examinées ici ressemble manifestement à celle des voyelles longues allemandes dans Rosen et Zeit. Il en est de même en français pour la prononciation modérée calme. Ge n'est qu'en appuyant que la courbe mélodique se gonfle.

(My italics)

stressed medially, initially and finally, and unstressed medially;

in statements: when initial, both stressed and unstressed, it has a rise-fall, and also when unstressed, and sometimes even when stressed, in final position; medially unstressed we have a level tone.\*\*\*

In all other instances in our examples so-called rising accents, both short and long, are realized as rising tones, and so-called falling accents, both short and long, are realized as falling tones.

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\*\*\* We should like to compare our results with those of Miloš Ivković, "Contribution à l'étude des intonations serbes", (No. 29), who on pp.211-212 comes to the following conclusions, after his examination of his recordings of the words gǎd and gǎdan, presumably recorded as isolates:

- I La hauteur musicale monte un peu au commencement de la voyelle, se maintient pour le centre, et baisse vers la fin.
- II L'intensité, pour la majorité des cas (11 sur 18), suit la hauteur musicale, c'est-à-dire qu'elle augmente au commencement, se maintient au centre et devient de plus en plus faible vers la fin.
- He also adds: III Dans les disyllabes la syllabe



In other words, putting our conclusions in more general terms, we can say that:-

RISING ACCENTS are realized partially or wholly with a falling tone

- 1) in all positions in questions (with the special question intonation) when the word is unstressed;
- 2) in final position in questions when the word is stressed and has the short tone only;
- 3) in final position in statements when stressed or unstressed;
- 4) in initial position in statements when stressed.

But:-

the so-called LONG rising accents are realized as falls medially and initially unstressed in questions, and finally stressed in statements; and they are realized as rise-falls finally when unstressed in questions, and initially when stressed and finally when unstressed in statements;

while -

the so-called SHORT rising accents are realized as falls initially and finally unstressed in questions;

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inaccentuée est plus grave et plus faible que la précédente, ce qui concorde entièrement avec les observations de M. Gauthiot. (cf. our pp. 15-18, 33)

and they are realized as

rise-falls medially unstressed and finally stressed  
in questions, and finally stressed and unstressed  
and initially stressed in statements;

and they are realized as a

fall-rise when stressed initially in questions.

Otherwise both rising accents are realized with a rising  
pitch. And, further:-

FALLING ACCENTS are realized partially or wholly  
with a rising tone

- 1) in all positions in questions (with the special  
question intonation) when the word is stressed;
- 2) in medial position in questions when the word  
is unstressed and has the short accent only;
- 3) in initial position in statements when stressed  
or unstressed;

FALLING ACCENTS are realized with level pitch in  
medial position in statements when unstressed.

But:-

the so-called LONG falling accents are realized as  
rises medially and initially stressed in questions,  
and initially unstressed in statements;

and they are realized as

rise-falls initially unstressed in questions, and

initially and medially stressed in statements;  
and they are realized as a  
level-fall finally stressed in questions;  
and they are realized with a  
long level pitch medially unstressed in statements;

while -

the so-called SHORT falling accents are realized as  
short rise-falls initially, medially and finally  
stressed in questions and medially unstressed in  
questions, and

initially both stressed and unstressed and also  
finally unstressed, and sometimes stressed, in  
statements;

and they are realized with a

short level pitch medially unstressed in statements.

Otherwise both falling accents are realized with a falling  
pitch.

From the above it will be seen that vowel length  
plays a part in keeping the scatter of tone patterns for the  
four accents distinct from one another.

Therefore it can be claimed that the four accents  
are distinct because of their different chains of possible  
realizations in a given set of frames, though in some cases  
they merge in identical or very similar realizations, long

falling ^ with long rising ', short falling `` with short rising `.

The main factors causing deviation from the realizations implied by the traditional names of the word tones ('rising' and 'falling'), as shown in our examples are:-

- 1) the Serbian question intonation (a high rise),
- 2) final position of the word, demanding a fall,
- 3) initial position,
- 4) absence of sentence stress on the inserendum, causing at least a less distinct realization in pitch of the word accent.

We can conclude, therefore, in answer to our questions posed on p. 10 and pp. 43-46, that sentence intonations even in the Što-dialect here studied\*, do have

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\* In this sense we cannot agree with Belić (No. 36), "L'accent de la phrase ...", p. 2 (184), when he writes: "Or dans tous ces dialectes (néoštokaviens) l'accent du mot est conservé dans la phrase", if he means here to include the pronunciation of the educated inhabitants of Belgrade.

G. L. Trager in his article "Serbo-Croatian accents and quantities", (No. 42), states with regard to what he calls "automatic" pitch differences: "These pitch phenomena vary greatly with individuals and with the sentence intonation,

an important bearing on the realization of the Serbian word accents.

Thus we can state that the system of the four contrasting accents in modern literary Serbian is justified as a phonological concept, but at the phonetic level the  

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and are in every case conditioned, never independent."

D. Jones in his book "The Phoneme", (No. 68), in §486 writes the following: "The principle of the toneme appears to be applicable in Serbo-Croat. The tones of the two length-tone complexes of that language (§§ 466, 583) are not always constant, but they vary to some extent with the phonetic context. Thus when the word written in the Fry-Kostić system ,mla'da (young) is said in isolation it is pronounced with the tone-sequence (/.), but when the word is immediately followed by a high-pitched syllable, its tone is of the type (-')."

This is sufficient to show that Professor Jones is aware of the different possible realizations of the Serbian word accents in different contexts. In discussing variations of stress he also writes the following: "Little information as to this appears to be available as yet, but it is reasonable to suppose, for instance, that the amount of decrease of force in a diminuendo stress would be different (probably less) when the following syllable is strongly

four accents have different exponents according to the contexts in which the various words bearing these accents are to be found. In these pages we have examined only a very limited category of words, but we have shown the possibility of the four accents having various exponents in our selected frames. We would like this work to be regarded only as a basis for a more complete and more detailed survey of the subject with more inserenda and more informants. The conclusions above, as stated earlier, are considered to be valid only for the inserenda here selected and other comparable words.

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stressed from what it is when the following syllable is weakly stressed. If a diminuendo stress has thus two or more values according to circumstances, those values can be grouped together and count as being the same for practical linguistic purposes. It is likely too that a level stress would suffice to indicate crescendo stress before a following weakly stressed syllable. In this case a level stress and a crescendo stress would have to be grouped together as a single linguistic entity, in the same sort of way as tambers are grouped together into phonemes."



LIST OF APPENDICES

- I       Recordings - Tape re-recording of sentences from original  
         Tape I with the main recording of the sentences,  
         and Tape II with a later recording of sentences,  
Reader:                specially repeated because the original  
Dr. Milka Ivić        reading or recording of them was for some  
                         reason unsatisfactory.
- II       Reproductions of the tono-oscillograms. See our  
         explanations at the end of Chapter III.
- III       Translations of Vuk Karadžić's original writings on the  
         subject of the Serbian word tones from  
         his "Grammar of Serbian" of 1814 and from  
         his "Serbian Grammar prefatory to the  
         Serbian Dictionary" of 1818.
- IV       Recordings of continuous passages intended as illustra-  
         tive material
1. From Tape III: Act I, Scene IX from  
             "Gospođa ministarka" by Branislav Nušić.  
             Reader: Dr. Milka Ivić, Accented text, p. 126
2. Disc recordings of "Šetnja posle smrti"  
             by Milovan Đ. Glišić (abridged).  
             Readers: Dr. Dušan Milanković, Miss Jelena  
             Tucaković. Accented text, p. 128.
- V       Translations of passages in Russian, Serbocroat and  
         Czech.

trése

(hesitation:)

kráška

3/

4/

5/

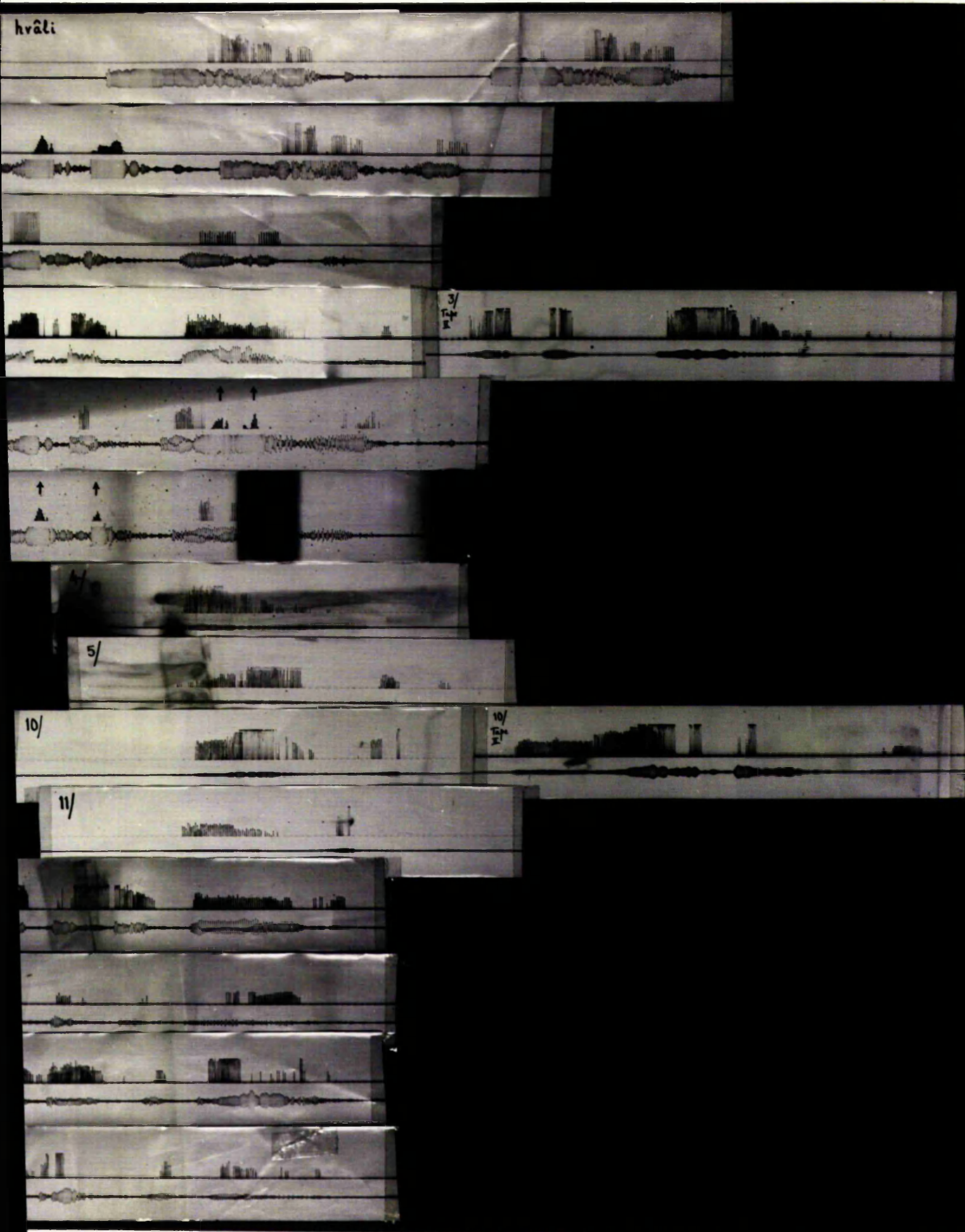
10/

11/

(-se whispered)



hráli



1na

1/

2/

4/

5/

10/

11/

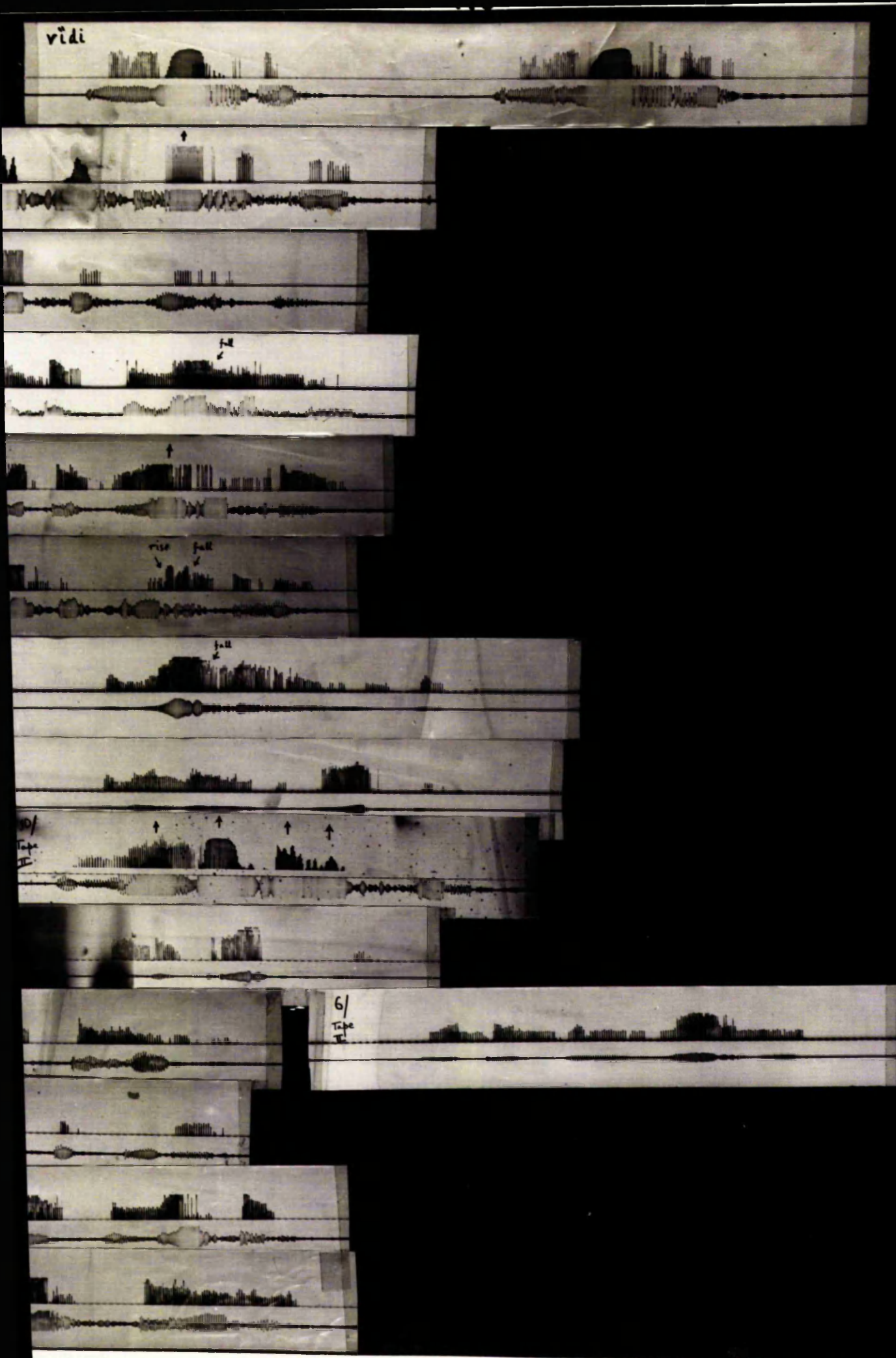
(p. 1na)

1na

2na



vidi



APPENDIX III. TRANSLATION OF TWO PASSAGES ON ACCENTS FROM  
THE WORKS OF VUK KARADŽIĆ: A. From his "Serbian Grammar"  
of 1814.

TRANSLATION FROM "СКУПЉЕНИ ГРАМАТИЧКИ И ПОЛЕМИЧКИ СПИСИ ВУКА  
СТЕФ. КАРАЏИЋА", књига прва, Београд 1894 - I. Српска  
писменица од г. 1814, Први део, В. О гласоудареньу - употребља-  
вање пригласила.

ON THE ACCENT

Every word consists of one or more syllables; but these syllables both in speech and in reading are not pronounced everywhere in the same way, for in some syllables the sound is more or less prolonged, while in others it is shortened and in yet others it rises; for this purpose there have been invented certain signs, which indicate this variation of sound. There are 4 such signs and they are called 'priglasila' (= accents, prosodies) (as also Mr. Luka Milovanov in his "Опыт наставленъа к Сербскої сличноречности" (= Essay in the teaching of Serbian versification) calls them.)

1. Priglasilo oduljujuće: Lengthening accent (˘), which is written over the vowel on which (alone) the sound is lengthened, e.g. tráva, rána, dúga, vóz, strúk.

2. Priglasilo preoduljujuće: Lengthening and extending accent (^), which is written over the vowel on which the sound is so much lengthened that it extends to the following vowels too a certain amount of its lengthening (because it



occurs mostly medially and rarely finally or initially), e.g. deset ljûdi; šest kônja; sedam jêzika, etc. This accent can be easily distinguished by anyone from the first-mentioned, because the latter lengthens only the one letter over which it stands, while under this second one the letter is even more lengthened and passes on a certain amount of its lengthening to the other letters following it, as here in the word ljûdi, the û extends its lengthening to the letter i; in the word kônja, the letter ô extends its lengthening to the letter a; and in the word jêzika, the letter ê extends its lengthening to the letters i and a.

3. Priglasilo podižuće: Raising accent (´), which is written over the vowel on which the sound (voice) rises slightly and is pronounced quickly, e.g. nôga, vòda, ràna, vràna, kàd, sàd, etc.

4. Priglasilo prepodižuće: Raising and extending accent (^), which is written over the vowel on which the sound (voice) rises a little more and is dragged out, and extends a little of this dragging out on to the following letter (sic) as well, e.g. blâgo, drâgo, zlâto, etc.

And now the following examples will illustrate better and more clearly all four accents and their difference: Ja sam nesrećna drûga; Nas ima sedam drûga; Ova je lagka i

liepa drûga;\* Ovo je pismo od moga drûga. In this example every Serb can easily observe the difference between all the accents. ( = I am the unfortunate friend (f.); We are seven friends; This is a light and good spindle; This is a letter from my friend.)

The use of the accents.

It is not necessary to put these accents on every word because this would be not only both a waste of time in writing and more expensive for printing, but anything so printed would look as if it had been strewn with little specks. But since there are some words on which it is necessary to put the accent, the following brief indications are given:

1. The Lengthening accent ( ' ) must be put in on words which are the same in writing as other words but different in meaning and sound (accent), e.g.

**Modern accent**

- ' rána (= food), čim se rani (= with which one nourishes oneself).
- " rāna (= wound), jazva na tielu (= sore on the body).
- ^ sád (= plantation), gdi je što posadjeno (= where something is planted).
- " sād (= now), narječie (jetzt) (= adverb, now).
- ^ kád (= incense), čim se kadi (= for burning).

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\* 'Drûga' is the name for an implement like a spindle but much bigger on to which Serbian women spin thread and twine the yarn for mats.



# Modern accent

- ˘ kàd (= when), narječie (когда) (= adverb, when)
- ˘ sàm (= alone), sam jedan (allein) (= by himself, alone).
- (none) sàm (= am), od jesam (= from 'I am').
- ˘ pítati (= to ask), voprošavati (= to ask, - in 'Slavjano-serbski').
- ˘ pítati (= to feed), raniti diete (= to feed a child).
- ˘ kúpiti (= to buy), uzeti za novce (kaufen) (= to take in exchange for money).
- ˘ kúpiti (= to collect), skupljati (= to collect).
- ˘ dūga (= rainbow), što na nebu biva posle kiše (= what appears in the sky after rain).
- ˘ dūga (= stave), kačna duga (= barrel stave).
- ˘ mí (= we), lično mjestoimen. u imen. množ. (wir) (= personal pronoun in the Nominative plural, we).
- (none) mí (= to me), lično mjestoimen. u datel. jedin. (mir) (= personal pronoun in the Dative singular, to me)
- (none) ih (= them), skraćeno od nji (ix) (= abbreviated from nji, them).
- (none) i (= and), sojuz (und) (= conjunction, and).

And on other words which are like these or are unknown in ordinary speech but are lengthened like these.

Among other things the sound of this accent is to be heard in all adjectives in the Genitive plural, e.g. dobri ljudi (= of good people).

2. The Lengthening and Extending accent (^) is put on all nouns in the Genitive plural, e.g. On poznaje mnogo trāva (= he knows many kinds of grasses); učitelj nāroda\* (= a

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\* When an adjective stands with a noun in the Genitive plural, it is not necessary to put the accent on both words but only

teacher of nations), etc.

Furthermore it is necessary to put this accent on some monosyllabic or dissyllabic words which are lengthened in this way, e.g. Gô, kao od majke rodjen (= naked as a new-born babe).

3. The Raising accent ('); it will rarely happen that it should be necessary to put this accent because it can be understood everywhere without being indicated.

4. The Raising and Extending accent (^) is also rarely used, except if such a word occurred which could be confused with another word if this accent were not indicated.

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on one for the sense to be understood; and often it is not necessary on either because other words show that it is in the Genitive plural.



B. From his grammatical preface to his "Serbian Dictionary" of 1818.

TRANSLATION FROM "СКУПЉЕНИ ГРАМАТИЧКИ И ПОЛЕМИЧКИ СПИСИ ВУКА СТЕФ. КАРАѢИЧА", књига друга, Београд 1894-1895, "Српска граматика пред "Српским Рјечником", г. 1818: О ГЛАСОУДАРЕНИЈУ.

### ON THE ACCENT

In Serbian there are 4 varieties of stress, for which the following 4 marks are here made: ` , ´ , ^ , ^.

The first ( ` ) is put over that letter on which (Modern accent) the sound is uttered sharply, e.g. vòda, vràna, zèmlja, (Modern accent) premètati, prèmetnuti, tìca, pìti, křst, přst, etc.

The second ( ´ ) is put over that letter on which the sound is really drawn out, e.g. grána, óvca, séka, víkati, dúša, ríkati, vesélje, trkati, sřna, etc.

The third ( ^ ) is put on that letter on which the sound dissolves in a round sort of way, e.g. glâd, blâgo, tâlo, bîr, sûnce, krûg, rôj, pâmtiti, trn, křv, trk, crñj-ka, etc.

The fourth ( ^ ) is put on that letter on which the sound is drawn out in such a way that from this protraction it passes over (extends) to a certain extent also on to other letters which follow, e.g. nâvo; (and everywhere in the Genitive plural) - deset ljûdi, pet ovâca, sviju nâroda, etc.

Which words have which accent on which syllable will be in due time defined in the grammars; but we here for the present will only make the following additional remarks about these accent marks so that the true sound of a word may be more easily apprehended: -

1) The sound of the first accent mark ( ` ) is of two kinds; this is specially noticeable in words spelt the same, e.g. bacati is pronounced more sharply when it means 'stechen' (to prick) than when it means 'werfen' (to throw); likewise ora is pronounced more sharply when it means 'die rechte Zeit' (the right time) than when it means 'die Nuss' (the nut); similarly one pronounces more sharply the word jarica = a young goat, than the word jarica = summer wheat, etc.; therefore I have put two marks ( ` ) in such words where the pronunciation is sharper, as can be seen with bacati, jarica, para, etc.

2) With regard to the third ( ^ ) one should remember: a) wherever this sound is on the second or third or fourth syllable of a word, then the sharp accent ( ` ) must also be on one of the preceding syllables, e.g. òvčâr, ràtâr, ràdôst, gospòdâr, gòtovljênje, goròpadnîk, vòjvodovânje, etc.; for this reason I have not even put (everywhere) the sharp accent on the first syllable where this one is on the second



syllable, as for example in ovčar, ratar, rvač, radost, ranjenje, nošenje, motanje, gnjecovan, goletan, građanče, etc.;

b) this sound is in all words ending in -nje, formed from imperfective verbs, on their penultimate syllable, e.g. gòtovljênje, rijênje, vòjvodovânje, etc.; therefore in such words there should be no need even to write it (since one knows that it should appear everywhere), and in fact I have not written it in those words of this type which have the sound of the second accent preceding this, e.g. písanje, strúganje, dosađívanje, otkupljívanje, ljúbljenje, etc.;

c) one could almost say that this sound too is of two kinds in those words where two such accents are on one word, e.g. pâmčênje, sūdîm, rādîm, šārām, vêžēm, etc. (in such verbs).

3) The sound of the fourth accent mark ( ^ ) is also of two kinds, which is most easily apprehended in words spelt the same, e.g. nas ima sedam druga (= we are seven friends), and - svaki imamo po deset lijepi druga (što se konci prepredaju) (= we each have ten fine spindles - for spinning thread): here in 'deset lijepi druga' the sound is not so drawn out as in 'sedam druga', but one says drûgâ; in the same way when one says: videli smo na nebu 10 dûga (= we saw ten rainbows in the sky), and - donijeli smo svaki po 10 kačni dûgâ (= we have each brought 10 barrel staves); deset grâna, and dopao rânâ, etc.

4) The sound does not remain all the time on one syllable, but changes, e.g. vòda, vòde, vòdi, vòdu, vòdo, vòdôm, vòdi, vòde, vòda, vòdama; sòkô, sokòle, sòkole; lònac, lónca (but rònac, rònca!), lônci, lònâca, lôncima; písati, pîšêm, písâše; jùnâk, junâka, jùnâče, junâka, etc.

БРАНИСЛАВ НУШИЋ:

ГОСПОЋА МИНИСТАРКА, Први чин, IX.

ЖИВКА, ЧЕДА, ПЕРА

Пера: (У л а з е ћ и н а с р е д њ а в р а т а .)

Извините, ја сам два пута куцао.<sup>a</sup>

Живка: Молим. Изволите!

Пера: Господин није код куће?<sup>1</sup>

Живка: Не!

Пера: А није ни у канцеларији.<sup>c</sup>Чеда: Ви сте чиновник?<sup>2</sup>

Пера: Да, писар код господина Поповића.<sup>6</sup> Па хтео сам да му јавим да је кабинет дао оставку. Хтео сам, знате, ја први то да му јавим.<sup>1</sup>

Чеда: Је ли то извесно?<sup>3</sup>

Пера: Извесно! А биће да господин Поповић то већ и зна чим није дошао у канцеларију.

Живка: Ама зар никако није долазио?<sup>4</sup>

Пера: Управо, долазио је одјутрос, али је некако одмах отишао, чим је чуо да је влада дала оставку.

Чеда: Па онда значи да он зна!

Пера: Зна извесно! Али ипак, ја сам хтео први то да му јавим. Ал' можда не зна, а сви кажу да су наши позвани да саставе нову владу.

Живка: (П р и ј а т н о и з н е н а ђ е н а .) Наши?<sup>5</sup>

Пера: Да, наши, а ја бих хтео то да му јавим..

Чеда: А ви у "наше" рачунате ...?<sup>1</sup>

Пера: Па "наши"!...: Госпòдин Стевáновић је већ òтишао у двòр.

Живка: Стевáновић?...<sup>6</sup>

Пера: Јá сам га свòјим òчима вíдео.

Живка: О, Бòже мòј, кáко би тò бíло дòбро. Вí сте лíчно вíдели Стевáновића кад је òтиш'о?

Пера: Вíдео сам га!

Живка: Òтишао је бáш у двòр?<sup>7</sup>

Пера: Дá!

Живка: Хвáла вам, госпòдине, вéлика вам хвáла што сте нас извéстили.

Пера: Јá сáд íдем на Терáзије; шéтаћу тáмо под кéстенови-  
ма, па ако јòш што òпазим, јá ћу вам јáвити. Само вас мòлим,  
кад дòђе госпòдин Пòповић, кáжите му да сам јá први дòшао  
и дòнео вéст да ће нáши òбразовати кабíнет.

Чеда: Рèћи ћемо.

Пера: (Г о с п о ђ и Ж и в к и у к о ј у к а о д а  
и м а в и ш е п о в е р е њ а .) Мòлим вас, гòспођо,  
рèците сáмо: Пéра пíсар из áдминистративног одељења.

Живка: Хòћу, госпòдине.

Пера: (В е ћ н а в р а т и м а .) Áко би бíло што  
врло интересáнтно, вí ћете допýстити....<sup>III</sup>

Чеда: О, мòлим:...

Пера: Вí ћете ми допýстити... (О д е .)

### ШЕТЊА ПОСЛЕ СМРТИ.

- Сирџмах Тале! <sup>е</sup>

- Бог да га прџсти! <sup>е</sup>

- Ко би се наџао? <sup>е</sup>

- Вџжја вџља! <sup>е</sup>

- Ёто што ти је чџвек!... <sup>е</sup>

Тако гџвораху чџтири џдације над својим мрџвим другаром, такође џдацијом, кџји се за свога века дџста нанџсио "џкспедициџнџг прџтокола" и надџдавао харџтије, вџде, пџра, маџтила, пџска - гџспџди по канцеларџјама.

Он је, сирџмах, џдавнџ бџо ту џдација, па џто сад дџшао сџђен чџс и џџму, кџо и сваком смрџтном џдацији. Легаџ пџсле рџчка здрав и чџтав и - џије се више пробџдио!

То је бџло у јџдном министарџству. Наџколо је великџ, леп парк, у парку стражара, а пред стражаром стоџи и дан и нџћ стражар - те џџшто чџва.

Тале је бџо врџло скрџман и врџло шџџдљив џдација. Од џнџ малџ платице стекао је џџку мрџку, па даџ под џнџтерес - кџо сваки чџвек кџји зна да треба чџвати "бџле пџре за црнџ данџ".

Њџки џџгови друџгови кџји су се слабо џбзирали на то правџло шџџдње, викали су пџчесто на Тала и назџвали га



тврдицом, саможивцем и тако даље.

- Која му вајда сад, што је скомрачио целог свог века?  
речи не један који је понајвише замéрао Талу.

- Е, да је знао, сирóмах, па да барем проживи мало...  
додаде други с тихим саучешћем.

- Немојте, браћо, рече трећи с још тишим саучешћем,  
грешити душе! Опет је био добар човек.

- А и душеван! додаде четврти.

Настаде мало ћутање.

- Па шта да радимо сад? Упита један.

- Саранићемо га.

- Хвала Богу, има се откуд.

- Јест, јест, саранићемо га! Додаде још један.

- Ваљало би га окупати, речи не онај с тихим саучешћем.

- Ваљало би, али ето како би?...

- Па да нађемо кога.

- Али кога би то?....

- Не знамо. Одговорише готово сви.

Опет настаде мало ћутање.

- Па и да нађемо, рече онај што је понајвише замéрао Талу, -  
овде се нема ни где ни у чему...

- А, ваља, немамо га где ни наместити.

- Ово је, браће, надлежатељство, рече опет онај први. -

Незгодно је да мртвац лèжи ту...

- Јест, дoиста нeкaкo нeзгoднo!

- Бaш нeзгoднo! Нeзгoднo! Рeкoшe гoтoвo свi.

И oпeт нaстaдe кyтaнe.

- A кaкo би бiлo, рeћи ћe oнaј пpвi, - дa ми нeгa спрeмимo квaрту, нeкa гa спрoвeду у бoлницy.

- Гoтoвo тo би нaјбoљe и бiлo.

- Бoлницa ћe гa лeпo сaрaнити.

- Oнa и oнaкo сaрaњуje сирoмaхe.

- A лaкo je плaтити и трoшaк, aкo бyдe...

- Кyд ћeмo ми пeтљaти oвдe с њим!?

- A и oнaкo имaмo дoстa звaничнa пoслa! дoдaдe oнaј пpвi вaжнo.

- Квaрту! Квaрту! пoвiкaшe свi.

И тaкo јeдaн oдaциjа oдe у квaрт, тe јaви дa je Тaлe yмpо. Квaрт oдмaх oдрeди јeднoгa oд свoјих "звaничникa", тe пoђе с јeдним жaндaрoм. Нaђoшe нeкe тaљигe, oдoшe у Министaрствo, нaтoвaришe пoслeдњe oстaткe Тaлoвe нa тaљигe. Пoписaшe му тeкoвинy, кoликo гдe имa, нaђoшe и нeштo гoтoвинe и нeкaквих нeгoвих пpицa; свe тo пoписaшe и пoкупилe, нa их oднeшe зaјeднo сa мpтвим Тaлoм у квaрт.

Квaрт oдмaх нaписa спрoвoднo писмo бoлницy. Зaмoли je дa, пo дoјaкoшњeм oбичajy, пpистoјнo сaрaни Тaлa, кaкo пoкoјникa

кòји нѐма нѝког свòга, па кад тò учини да поднѐсе квàрту рачун, те ће се ђдмāх исплāтити из Тāлове готовине...

Јѐдан жандāрм понѐсе тò спрòводнò писмо, и тāвиге с мртвѝм Тāлом крѐнуше се нāјлак пут бóлнице...

Тò је бѝло око шѐст сaхāтā пред вѐче.

.....

- Е, вѝдиш ти, мòлим те, гдѐ хтѐдоше да нам ђстaве мртвāца ђвде!

- Да шћāше ђстaт', бђжā ми вјѐра, не нђних му јā ђђе, љѐ!

- Шчђ! Сос мртвaк под ђден крђф? Нѐкемо!

- Да је и болѐснѝк, тугa је нѐкако човѐка, а кāмо ли мртaв чђвек!

- Хвāла Бђгу те га ђднеше ђдāвде!

Тāко се разговāраху жандāрми у свђјој сђби, спрѐмни вѐћ да спāвају.

Ўтђм доклопāрaше кђла, и стāдоше пред квāртом. Кāпија шкрѝну. Мāло пђстāја, љђе унутрa Мѝрко, и зђвну из хђднѝка:

- Кāпларе!

- Извђл'те, гђспђдине! ђдaзвā се изнутрa кāплāр и брже изѝђе у хђднѝк.

- Åма гдѐ бѝсмо смѐстили ђвог мртвāца?

- Мр ..... Мрт ... Мртвāца.

- Дѐ, штā си зāмуцао туг? Мртвāца, дaбђме!

- Ја, Бога ми, не знам, господине! Одговори каплар сав усплахирен.

- Дела, упитај тамо људе, може ли се где код њих, или овде у ходнику.

Каплар оде у собу. Мирко хода по ходнику.

У соби се диже граја:

- Ајја, не може!

- Јок! Јок!

- Не ноћих му ја оће, ље!

- Некемо сос мртваци!

- Сви кемо ићи одавде!

- Не може, не може!....

Ивиће каплар те јави Мирку:

- Бога ми, господине, људи хоће да беже. Неће за живу главу да га приме.

- Па овде у ходник?

- Ни ту не даду.

- Е, то је мука!

- Како би било, господине...

- Шта?

- Апсана је празна...

- Па? III

- Да га затворимо нек преноћи?

- Ти си луд! Мртва човека у апсáну! А шта би сўтра рекао свѣт, када се то рашчује? То би нам још трѣбало! рече Мирко.

Покута мало, па уђе сáм у собу к жандармима и стаде им говорити да приме Та́ла, нек са́мо прено́ћи, а сўтра ће се ра́но одне́ти те укóпати.

- Не́ може! Не́ може! за́викаше жандарми, да ўши већ за́глухну Мирку.

Он изи́ђе љутит из собе, не́ рече ни рѣчи ка́плару, него оде на́поље, па ви́кну о́ном жандарму код ко́ла.

- Хајдемо! Те́рај на́прѣд!

- Та хо́ћемо л', госпо́дине, још дўго? упи́та кочи́јаш, не́ки Бана́нин.

- Хајде ти, бра́те, са́мо! Те́би ће се свѣ ле́по пла́тити, не́ бо́ј се! рече Мирко до́ста јѣтко.

- О, мо́ј госпо́дине! Та ја́ сам још кирија́шио и во́зио и тргова́ца и господáра, али 'ва́ко к'о но́ћас ни́кад!....

- Па во́зи једáнпут и та́ко! рече Мирко, па се онда о́крете жандарму: - А ко́г сте вра́га толи́ко че́кали у бо́лници? Ба́рем да сте ра́није по́хитали о́вамо.

- Че́кали смо упра́витеља. Ни не́га ни пи́сара. Већ нам се до́сади по́вати у áвлији. Једва у злò до́ба - е́то ти пи́сара.

- Па шта́ рече?

- Не́ може, ве́ли, бо́лница сара́њвати ви́ше ни́ког ко ни́је та́мо у́мро. Та́ка је до́шла на́редба. И ле́по нас врати́.



- Да, то је и на акту написано. Па што онда нису и кварту јавили, да је дошла така наредба? Онда бисмо барем гледали шта ћемо с овим лешем...

Кола окренуше улицом навише. Тако заповеди Мирко.  
Сахат избѣја десет.

.....

- А где сте га оставили? запита полако члан жандарма кад уђоше овога на главни улаз у парк.

- Ту, господине! одговори жандарм.

- Наопако, а овај стражар!

- Склонили смо ми кола овамо иза здања. Стражар није опазио.

- Добро сте учинили... полако хајде!

И члан придиже сабљу, да му не куцка по калдрми, па се тихо прикрадеше до под прозора на соби ђациској.

Члан рече жандарму, те кучну полако у прозор.

Мало постаја, ето ти оног раскомоћеног ђације, отвори прозор и упита:

- Ко је?

- Члан. Отворите врата! одговори жандарм.

Одмах се врата отворише.

Члан уђе унутра. Мало по-мало изиђоше све ђације у ходник; сви буновни, погдекоји и зева.

- А што ви, људи, не примите овог човека, него лежи на сокаку? упита члан.

- Нема се где, господине, одговори један уз дуго зевање.

- Та метните га ма где; или овде у ходник или у вашу собу - нек само преноћи.

- У нашу собу не може.

- Ко ће лежати с мртвцем! додаде други одација.

- У ходник се не може, шта ће рећи људи кад стану сутра долазити у канцеларију? рече неки трећи.

- А ја, не може, не може!... повикаше све одације готово у глас.

Члан похута мало, па рече: - Баш ви немате срца! Срамота! Та, за Бога, био вам је другар. Да је при циганин, требало би да га примите, севапа ради, а камо ли свог друга, свог брата, с којим сте друговали, јели с њим и хлеб, делили, што кажу, свако добро и зло...

- Оно, јест!... Тако је! почеше неки да мрмљају...

- Помислите, настави члан даље, - може и кога од вас, не дај Боже, сутра снаћи оваки случај. Зар не би то било Богу плакати да остане на равни, под ведрим небом? Суђен час не пита кад ће доћи. Човек не зна шта му носи дан и ноћ. Ко пре, ко после - сви ћемо овако, као и овај сиромах, овај ваш друг.... Бог да га прости!

- Јест, оме!... Тако је! рекоше неки и као уздахнуше.

- Па онда, помислите, како би то било да се рашчује како сте свог другара, свог брата оставили мртва на улици? Свак би се згрѣо, кад би то чуо. Свак би вам казао да немате ни душе ни срца...

- Тако је!... Јест... Сирѣмах!... изговарају неки жалостиво, и већ се у овој помрчини беласну понеки рѣкав - бришу сузе.

- Па дела, браћо, унесите га у своју собу или где овде у ходник, па га лепо, хришћански, братски, причувајте до ујутру. А сутра ћемо рано гледати да се сарани. Учинићете задужбину, севап један. Вашем покојном другу, што вас је можда доста пута лепо разговорио и намалио се с вама, биће мирне кости; његова душа биће задовољна, <sup>види</sup> кад сте му одиста другови били и учинили му последњу услугу и љубав, коју човек треба да учини човеку...

- Хајдете, браћо, да га унесемо! рече један одација сасвим кроз плач.

- Сирѣмах Тале!

- Бог да га прости!

- Ех, Ех! Што ти је човек!

- Хајде, дајте га амо у собу! завикаше све одације.

Сви бришу сузе рукавом, неки већ гласно јецају.

Изидоше онако раскѣмѣнени до таџига, дигоше полако свог Тала, унесе га унутра и затворише врата.

- Но, хвала Богу! рече кочијаш.

- Једва једном! додаде жандарм.
  - Хајде сад! повика члан.
  - А ко ће мени платити, господине? упита кочијаш.
  - Сутра, браће, дођи у кварт; платиће ти се све.
- И сви се пожурише брже-боље из парка.
- Сахат изби један после поноћи.

.....

Милован Глишић.

APPENDIX V

TRANSLATION OF PASSAGES IN RUSSIAN AND SERBOCROAT  
AND CZECH

p. 18 Kuznetsov: "On the phonological system of the  
Serbocroatian language", pp. 126-7. (No. 46)

All unstressed syllables in Serbian are characterised, as  
is well known, by a falling tone (my italics) and <sup>no</sup> differences  
between them which are not connected with sentence  
intonation have been observed in them.

p. 21 Broch: "A sketch of the physiology of Slavonic  
speech" (of which "Slavische Phonetik" is the  
translation), § 255, p. 237 (No. 4)

Remaining still in the field of the Serbian language (of  
Mostar) we will add a couple of examples to elucidate the  
basic outlines of its sentence intonations. A comparison  
of "došao je" (usually contracted to "došo je") in its  
narrative and interrogative forms:

.....

do-šo je or do-šo je <sup>1)</sup> do šo je? (2)

shows that it is not necessary for the interrogative,  
rising intonation to continue to the very end of the  
sentence; the last part on the contrary goes down again.



Cf. in an expression such as (e.g. at the shoemaker's )  
 "je li gotovo?" (accent: gò-): in a calm question the  
 following intonation was observed

..... (3)

je li go-to-vo?

in an annoyed, threatening question ..... (4);  
 the outline of the intonation, as we see, is in general  
 the same, in both cases it descends in the last unstressed  
 syllables; the threatening sense is conveyed in the  
 greater intervals and in the stronger expiration ("greater  
 strength") characteristic of the whole of an expression  
 of this kind.

(1) Usually a small interval from a semitone to an  
 interval of a (musical) second.

(2) From do- to -šo a fifth was observed, from -šo to je  
 usually a minor third; in an astonished question the  
 interval from do- to -šo is increased.

(3) From je li to go- a second or a minor third; in go-  
 a slight rise; -tovo - a semitone to a second lower than  
je li; but these intervals are not absolute!

(4) From li to go- usually a fourth; the rise on the  
 syllable go- is clearly heard to be of a semitone or second.

p. 26 Footnote R. Brandt: "A sketch of Slavonic accentology", footnote 3, p. 79. (No. 3 )

Actually, Vuk's system of accentuation in its final form first appears in Daničić's article entitled "Some remarks on Serbian accents" (Slavishe Bibliothek, Vol. I, p. 97). This article appeared in 1851, that is a year earlier than the second edition of Vuk's dictionary.

p. 27 Belić: "On modern accentuation", p. 227 (No. 45 )

The first and basic principle of our accentuation, I am talking here of those što dialects which are the basis of our literary language, is that <sup>the</sup> accent is an integral part of the word so that together with the actual sounds ∠i.e. vowels and consonants∠ it makes up those signs by which meaning is indicated. It is important constantly to point out this, because it means that when everything else is identical in a word ∠when compared with one another∠ they can be differentiated by accent alone, so that sometimes the accent is the main phonological element of the characteristic phonetic units.

p. 28 Kuznetsov: "On the phonological system of the Serbocroatian language", p. 127. (No. 46 )

This difference in the direction ∠rising or falling∠ of the movement of the pitch of the voice in the initial

syllable of a word plays a definite role in the distinguishing of meaning: e.g. sijati "to sow" - sijati "to shine"; rāzor "furrow" - rāzor "destruction"; stvāri, Gen., Dat. sing. - stvāri, Loc. sing.; pjèvačica "cuckoo" - pjevāčica "female singer"; mālina "raspberry" - malina "a small size"; imānje "having" - imánje "an estate or property".

p. 30 Jagić: "Parallels to the Croatian-Serbian accentuation", p.3 (No. 17)

For it is first of all completely true that a vowel accentuated with ` is pronounced much more gently than if it had the ``.

We differentiate in the present literary Croatian-Serbian language, in the što dialect, four different pronunciations of short and long vowels altogether; and therefore we have four different signs, namely `` and ` for short and ^ and ´ for long vowels.

p. 5 - And so a long vowel with the accent ^ indicates approximately the same as two short vowels with a strong raising of the voice (``) on the first half (on the first mora) of that long vowel and with a fall of the voice on the second half (second mora); again a long vowel with the accent ´ indicates approximately the same as two short vowels with a lengthened rise (^) in the second half (second mora).

p. 35 Kuznetsov: "On the phonological system of the Serbocroatian language", p. 130. (No. 46)

From the phonological point of view the Serbian accent must be interpreted in the following way. It belongs to the phonological features which characterise the whole word and which are realized by means of the opposition of whole words to each other. But in contrast to the monotonic accent which is typical of Russian and the majority of the Slavonic languages as well as of western European languages, the Serbian accent is characterised by two sense-differentiating\* features - its place in the word and its kind (the direction of the movement of the pitch). But each of these features appears only under certain conditions (in the same way as phonemes of different classes very often can be opposed to each other only in certain circumstances): only words and forms with a rising intonation can be differentiated from one another solely by the position of the accent; only words and forms which are accentuated on the initial syllable can be differentiated from one another solely by the kind of accent (rising or falling) provided they are words of more than one syllable.

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\* My italics.

p. 33 Footnote Miletić: "O srbo-chrvatských intonacích v nářečí štokavském", p. 39. (No. 12)

With the secondary accents ( ` and ´ ) the interval between the accented syllable and the following one is usually less than with the primary accents.

p. 38 Miletić: "The foundations of Serbian phonetics"  
p. 102 (No. 14)

(a) Unstressed long vowels in the final syllables of noun and verb flexions as a rule are shortened, compare bābe for bābē .... žēna for žēnā .... rúkom for rukōm; drāgi for drāgī, nōsim for nōsīm, .... and so on; cf. (rūku) zā ruku for zā rūku, .... etc., but šēšīr, dēvōjka, trǔgovca, jūhāče etc. as in the literary language.

Footnote 1) These deviations came to Belgrade from neighbouring dialects. Thus the most characteristic feature of the Belgrade literary accentuation, the shortening of unaccented long vowels, is widely known in the of the dialects majority of the Vojvodina; in the Kosovo-Resava dialect all unaccented long vowels are shortened, while in the Prizren-Timok dialect both accented and unaccented long vowels are all shortened.



p. 43 Belić: "On modern accentuation" p. 227 (No. 45)

On the other hand one must point out that the following peculiarity of the Što dialect accent is of great importance for the sentence: the individual accents of words in a sentence do not change, they are firmly fixed in the words. It may happen that some accent in a certain position in a sentence is omitted or is pronounced indistinctly, but it does not change in a sentence, except under clearly defined conditions: when a preposition, conjunction or adverb which are felt to be a part of the word before which they stand, takes over the accent from that word. This is a well known rule in our language, so I will not dwell on it.

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